
INSPIRE.
GROW.
IMPROVE.
GREENSTONE FCS 2019 ANNUAL REPORT

"During the challenges of 2019 it became clear that providing vision for the future with a focus on "people first" is key to GreenStone's strong profitability and stability, superior customer service, and a uniting factor within our workforce."

– Dave Armstrong

– Ed Reed

Scan this QR code to watch a message to members video from CEO Dave Armstrong and Board Chair Ed Reed.

Or visit the direct video link here:
www.greenstonefcs.com/Letter

Partnership is our secret strength.

MESSAGE FROM THE CEO AND BOARD CHAIR

We are pleased to provide you the 2019 Annual Report for your cooperative. Despite strong headwinds throughout 2019, our members' agricultural businesses performed remarkably well. Much of the marketplace endured the wettest and (in some areas) driest weather anomalies seen in years, resulting in one of the longest planting and harvest seasons many can remember. The subsequent variable yields ranged from no crops going in the ground in some areas, to bumper crops growing in others.

Unprecedented market uncertainty for many commodities due to these conditions, plus ongoing international trade disputes and political wrangling, made this year one that will be talked about for generations. Yet, our members hard work, perseverance, and commitment to their obligations resulted in financial success for many of our 25,000 GreenStone members and the largest patronage payment since the program began fifteen years ago. It is tough, uncertain times like these that require strong partnerships you can rely on.

Partnering with Our Members.

Along with providing flexible financing and crop insurance products, GreenStone offers wraparound tax, accounting and payroll services to members. We are also committed to developing young, beginning and small farmers with resources like Grow Forward Grants and the Farm Forward Mentorship program, to help further secure a solid foundation for their success.

Partnering with Our Employees.

GreenStone's dedication to the agricultural and country living customers we serve is at the core of our values. From delivering quality, to getting involved, and doing what's right, we put our members first. Inspired by these farmers and rural property owners, GreenStone is committed to embracing a company culture of engaged employees who are not only equipped with knowledge and resources, but who also create and sustain trusted individual customer relationships.

This is the real secret to our strength as an organization.

Partnership in Our Communities.

GreenStone supports the communities it serves through continuous outreach and engagement at all levels. Our branches come together to contribute to local initiatives, provide in-kind resources, and volunteer at events. We continue to support academic and career goals of youth in agriculture through our annual scholarships, career-focused internship program and our commitment to youth organizations including the 4-H and FFA.

Coupled with the resources our cooperative provides and partnership with numerous other organizations, GreenStone also offers both in person and online educational opportunities for members and local communities. These cover a range of topics including crop insurance, accounting, logging, home construction credit basics and much more.

Partnership Pays.

On March 11 – Patronage Day – our member-owners will each receive their portion of a record-breaking $100 million returned to them in patronage.

Celebrating 15 years and an overwhelming $500 million dollars of total patronage "pay back" is a key value of partnership with this cooperative, and one way we acknowledge members who have exhibited hard work, tenacity and commitment to agriculture and rural living. The record-level of patronage is a direct result of our members' trust in GreenStone and our commitment to farmers in Michigan and northeast Wisconsin. This partnership reflects our commitment to do all we can to assist our members.

We realize a patronage check is not a fix for the situations members encountered in 2019, yet it does signify our long-term commitment to providing dependable services at a competitive rate – and to do so in a financially responsible way.

Partnership is Our Path to the Future.

We continued to diversify our agricultural portfolio in 2019 to increase our balanced involvement in rural home and agribusiness financing. In addition, we were able to once again help our members financially weather the extended market downturn by offering flexible financing with personalized products designed to meet the unique situations presented by each of their individual businesses and assist many through another difficult season.

GreenStone's internal focus in the coming year is wrapped around the banner of Inspire, Grow, Improve. During the challenges of 2019 it became clear that providing vision for the future with a focus on "people first" is key to GreenStone's strong profitability, stability, superior customer service, and a uniting factor within our workforce. The more we do to support our members, the stronger your cooperative becomes. It is our privilege to partner with families who farm and those who embrace country living, and GreenStone stands committed to safeguarding your home and business's financial options.

Your cooperative continues to build and grow for the future. Record patronage, earnings, and capital, combined with strong loan growth in 2019, are just a few more reasons our partnership with you will be prosperous long-term.

We thank you for your business and loyalty to GreenStone. You have many other choices of financial services providers and we are humbled and grateful you have chosen us!

Edward L. Reed
Chair of the Board

David B. Armstrong
Chief Executive Officer

Together we make a big statement.

GreenStone's elected directors are a professional group of men and women with a proud history of getting their hands dirty. They bring their working farm background to the boardroom, and combine their diverse farming experience to set a future course that both meets the financial needs of our customers, and invigorates the team working for our members.

Showcased in this report, several directors share their thoughts on the 'Inspire, Grow, Improve' direction driving GreenStone forward. Last year presented our members with an extremely challenging growing season, and GreenStone's directors felt the same uncertainty and frustration on their farms. Speaking from their experience, the directors express optimism for seasons to come, and appreciation for the resilience of the men and women feeding America.

Creating resilience, for GreenStone's continued growth and for Michigan and northeast Wisconsin farmers and rural consumers who are keeping the faith, resulted in internal and external improvements, new financial products, and diversification. Supporting our traditional agricultural customers during difficult times is facilitated, in part, through GreenStone's expanding portfolio in country living and capital markets. None of our achievements would be possible without customers who have steadfastly exhibited hard work, tenacity and commitment to agriculture, rural living and a cooperative financial system. In a very real manner, their success is GreenStone's success.

Financial strategies approved by GreenStone's board of directors strengthened the cooperative's profitability in 2019, resulting in $100 million in patronage returned to members. A healthy financial statement is a testament to sound decision-making, but the bottom line in our boardroom is not just about money.

Our biggest statement is evident in the partnerships GreenStone has cultivated with employees, customers and communities. Our statement is apparent in the leadership the CEO and board of directors provide, and the knowledge, understanding and support offered to our cooperative members through our 36 branch offices and 550 staff members. And, our statement is reinforced by the loyalty and long-term business we receive in return from our customers.

GreenStone directors believe in the future of agriculture in Michigan and Wisconsin, and the value of rural communities. As our mission statement proclaims, GreenStone is dedicated to delivering high quality, competitively priced services to our customers; providing leadership to the agricultural and rural communities; being a financially strong cooperative organization; extending credit services in a manner that meets the specialized needs of our customers; and, importantly: creating long-term relationships with our members that have a lasting, positive impact in their business and personal lives.

Together, with our partners, we make a very big statement.

Scan this QR code to watch a video on our cooperative structure featuring GreenStone Directors.

Or visit the direct video link here: *www.greenstonefcs.com/Cooperative*

2019 HIGHLIGHTS–

$206.4 Million in Net Income

8.6% Total Loan Growth (owned and managed)

$9.9 Billion in Total Assets (owned and managed)

$100 Million paid back to members in patronage.

BOARD OF DIRECTORS–

Front row featured left to right:
Hank Choate, Bruce Lewis,
Ed Reed and Gene College.

Back row featured left to right:
Andy Snider, Scott Roggenbuck, Peter Maxwell, Laura Braun, Ronald Lucas, Troy Sellen, Terri Hawbaker,
Jed Welder, Tom Durand, Dale Wagner, Mike Timmer and Dennis Muchmore.

Scan this QR code to learn more about GreenStone's board of directors.

Or visit the direct link here:
www.greenstonefcs.com/governance

Inspiration is a pillar of our success.

"There are 16 GreenStone directors; we are very diverse and the majority of us come to the boardroom right off of our farms, knowing what's going on in our communities. There are people out there just like me, who are counting on us as a board to make sure the association is here for them when they need it. GreenStone understands the cyclical nature of agriculture. Being able to share that with our neighbors in our districts, giving farmers the confidence to know that the co-op is going to be there to support them through good times and bad, inspires all of us to serve." – Andy

Dedication to the agricultural and country living customers we serve is at the core of our company mission. Inspired by these farmers and rural property owners, GreenStone is committed to embracing a company culture of engaged board members and employees who are equipped with the knowledge and resources to best support customers and serve our communities.

"Our employees are friendly. They are professional, caring, and one of GreenStone's biggest strengths. They are not engaged because they're getting a paycheck; they're engaged because they love what they are doing. They love the people that they work with." – Dale

Launching an internal program of professional development is helping GreenStone raise the bar for customer service to meet the evolving needs of our cooperative's members. We've instituted improved team communication along with sales and technical training, because we

ANDY SNIDER
Region 5 Director

recognize our greatest strengths are our employees and the relationships they forge with our members. Providing vision for the future with a focus on our people first, while actively supporting our workforce is key to GreenStone's strong profitability, stability and superior customer service. "Inspire One GreenStone" is an important pillar of the 2020 business strategy, and a board-supported initiative designed to benefit all of our customers.

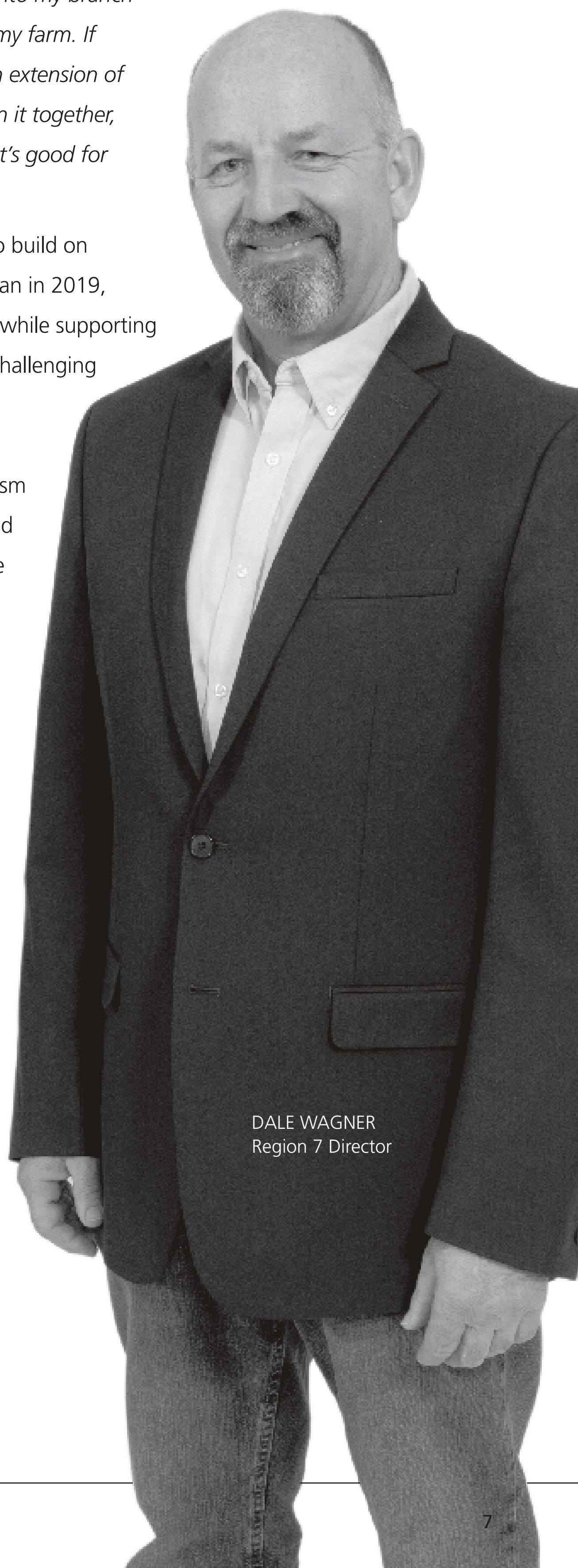
"One of the unique things about GreenStone is the people that govern and give direction are all members. Granted, we have 25,000 members and there are 16 of us on the board, but when I am in the boardroom, I'm not afraid to take off my boardroom cap and put on my farmer cap and use my farmer voice." – Dale

Unanimously approving the return of $100 million dollars in patronage to members was a strong vote of confidence in both the cooperative and in our farmers and rural customers by GreenStone's board of directors. This year's return constitutes nearly 50% of GreenStone's net earnings, and provides members with a 'pay back' for their continued business during an extraordinarily difficult season. The hard work and perseverance of farmers in Michigan and Wisconsin has been an inspiration to all of us at GreenStone, and we are proud to support our agricultural partners.

"Everybody's different, and that diversity is what makes our cooperative strong. It is what's given GreenStone the growth and the ability to pay back patronage. The big thing about a co-op is we all own this company together. GreenStone has 25,000 members; obviously, I'm just a small piece of that. But, when I walk into my branch office, it's like it is part of my farm. If you view your lender as an extension of your business and you're in it together, there's give and take and it's good for both sides." – Andy

GreenStone will continue to build on business initiatives that began in 2019, and on the lessons learned while supporting our customers over a very challenging year. We are confident the resilience of our seasoned producers and the enthusiasm of our young, beginning and small farmers will create the innovation and technology that will carry us toward a successful future.

"GreenStone has been a wonderful partner for me and my farming business. My inspiration to be a GreenStone director is the youth that I have coming into my farm with my son joining the business. When you work with these young people that look to the future, it's pretty easy to continue to look to the future yourself." – Dale



DALE WAGNER
Region 7 Director

Scan this QR code to watch a video featuring these Directors' perspective on inspiration.

Or visit the direct video link here: *www.greenstonefcs.com/Inspire*

We cultivate growth in many ways.

BRUCE LEWIS
Region 3 Director

"Growth means a lot of different things. For me as a farmer, it means when you're down on your hands and knees watching those seedlings come out of the ground. As a father, it means watching both my kids grow up on the farm. And, as part of an organization like GreenStone, it means providing the stability and the means for successful growth for each individual farmer." – Jed

GreenStone continues to grow opportunities to benefit our members with the value our experienced team and individualized products provide to strengthen the bottom line.

Loan growth ended the year at 8.6 percent contributing to record net earnings of just over $200 million and ultimately benefiting patronage returned to members. Net earnings are critical to the long-term financial stability of the cooperative, and gives GreenStone the flexibility to responsively support customers through difficult economic shifts. Our net earnings are the result of strong non-interest income, lower than expected loan loss provisions, very manageable

JED WELDER
Region 5 Director

credit quality, and solid expense management. They are also the result of member loyalty, and the hard work of our GreenStone employees who forge the customer relationships that have always been the foundation of our success.

"The word 'unprecedented' kept getting thrown around this year. The soils are saturated. We had a wet spring, we had a wet fall, and we've gotten stuck a lot of times. There are crops still in the field from 2019 and now it's 2020. Knowing that the people who work at our local GreenStone branch drive by those fields every day, knowing they're in this fight with us, knowing that the organization is there behind us every step of the way, is important." – Jed

With priorities to strengthen customer servicing and identify new prospects, 2020 initiatives will help to increase profitability for the company and members. A diversified customer base and expanding market share within the agribusiness and country living sectors feed GreenStone's growth curve and helps to balance risk. These strategies and others provide a solid financial foundation that allows us to work with customers during good times and in challenging times, while proactively responding to changes in the marketplace.

"I have two sons that work full time with me on the farm, and it's interesting to try and keep the momentum going for the next generation. I actually have a couple of grandchildren now and they're showing a lot of interest in agriculture, too. As a farmer and as a GreenStone board member, I want to make sure there are people who understand agriculture to serve the farmer of the future – not only in capital, but for individuals who will be farming 20, 30 years from now." – Bruce

Helping new farmers and small-scale farmers obtain and maintain the resources they need is a mission central to GreenStone and the Farm Credit System. We are committed to developing Young, Beginning and Small Farmers (YBSF) with educational and financial resources to help secure a solid foundation for their success.

In addition to flexible loan financing, GreenStone provides YBSF support through Grow Forward Grants, scholarships and contributions to young farmer educational programs. We understand the challenges individuals face when starting their own farm or taking on ownership of a multi-generational farm, and through our modified underwriting standards and knowledge of specialized Farm Service Agency (FSA) programs, we can provide expert resources and financing options for unique situations.

"We've got to stay relevant. GreenStone has been in business for over a hundred years, and we want to keep the growth and momentum going into the next hundred years." – Bruce

Securely growing our online presence and creating consistency with streamlined, ease-of-use tools for online loan applications is a top GreenStone initiative. Launching in 2020, online loan requests will be expanded from country living financing needs to also include agricultural real estate loan requests.

The new Dairy Revenue Protection Analyzer is an online tool that GreenStone offers producers to help them eliminate some of farming's guessing game. We are dedicated to creating solutions for challenges our members have faced over the last year, and GreenStone remains committed to healthy growth in the future.

"Farmers are eternal optimists. As a member of GreenStone, and now on the board of directors, I often hear the words 'cautiously optimistic'. I'm not cautiously optimistic. I'm wildly optimistic about agriculture in 2020 and what GreenStone is going to do." – Jed

Scan this QR code to watch a video featuring these Directors' perspective on growth.

Or visit the direct video link here: *www.greenstonefcs.com/Grow*

Improvement delivers change with purpose.

"GreenStone is always looking at improving. We have a management team and a CEO that are really driven to make the organization better, and the directors are completely onboard with that drive and direction. We want to become more efficient. We want to protect our assets. We want to make sure that we're using sound lending practices and that we keep improving, just like any other business has to do. If we're going to stay competitive, we need to improve." – Tom

TOM DURAND
Region 2 Director

MIKE TIMMER
Region 4 Director

GreenStone centers on a culture of continuous improvement. Our partnership with our members is the cornerstone for all we do, and GreenStone employees and board members are always evaluating ways to improve our products and services. The 2020 business plan includes 16 initiatives, prioritized to strengthen your cooperative further by improving operational efficiency, increasing growth, managing organizational risk and focusing on customer service. Financially, GreenStone continues to diversify with emphasis on agribusiness, country living and capital markets prospects to add balance to the portfolio.

"If you're not improving, you're probably going backwards. As an individual and as a business, you have to continue to push forward and make necessary changes. GreenStone board members ask questions: Why are we doing this? Do we need to do it? Is there a way that we can do it better? These are all good questions for us to ask producers, too. Asking questions produces ideas that help us find ways to improve our operations." – Mike

Focused on consistency and efficiency, pilot programs commencing in early 2020 will measure and improve the speed and accuracy of automated workflows, staff alignment and loan processing times. With a redesigned application and approval process for our home, land and recreational properties, we expect these improvements to reduce application-to-close time by 50%. These initiatives have priority due to the positive impact they will have on customer experience and overall satisfaction.

"Improvement isn't a new word to the organization. There hasn't been a board meeting that I've been a part of that we haven't either explored a new idea, or heard a report about a new initiative that's been tested to improve efficiencies or make our customer relationships better." – Mike

As technology advances, the importance of maintaining the privacy and security of our customers' information remains another top priority for GreenStone. In addition to the safeguards already in place, GreenStone continues to evaluate and modify our practices to enhance our cyber security programming to mitigate online threats. Along with programmatic and system protections, we have increased emphasis on enhanced employee education as another opportunity to reinforce proven safety procedures and security measures. Amplified internal training, practice and testing will be required of every employee with an emphasis on real-time responses to phishing and other cyber threats.

GreenStone's engagement with Inspire, Grow, Improve is just the start of what the cooperative is embracing to effect real changes throughout the company. We look forward to using new training and tools to better focus on the communities we serve, while our consistency of process and continuous improvement across all channels will ensure an even stronger experience for customers who have trusted GreenStone as a partner in their future.

"All successful businesses pay attention to detail, and on the farm it's no different. Focusing on the details can prevent very costly mistakes! As a board member and as a farmer, I advocate for learning how to use technology, how technology can work for you, and how it can make you money. Success is in the details – and in your relationships. On the farm, acquiring good help is vital; you can't do everything. My relationship with my GreenStone loan officer helps me make financial decisions to grow my business. Little improvements can make a very big difference." –Tom

Scan this QR code to watch a video featuring these Directors' perspective on improvement.

Or visit the direct video link here: *www.greenstonefcs.com/Improve*

2019 FINANCIALS

GreenStone Farm Credit Services, ACA

Consolidated Five-Year Summary of Selected Financial Data

GREENSTONE FARM CREDIT SERVICES, ACA
(Dollars in thousands)

	2019	2018	2017	2016	2015
STATEMENT OF CONDITION DATA					
Loans	$9,398,125	$8,619,585	$8,212,256	$7,801,558	$7,292,647
Allowance for loan losses	95,454	84,064	72,640	46,382	34,290
Net loans	9,302,671	8,535,521	8,139,616	7,755,176	7,258,357
Investment in AgriBank, FCB	222,432	196,566	164,805	159,936	111,217
Investment securities	9,046	7,715	12,414	16,749	20,587
Acquired property	1,577	1,766	1,572	1,583	2,440
Other assets	192,537	177,742	164,448	145,785	134,039
Total assets	$9,728,263	$8,919,310	$8,482,855	$8,079,229	$7,526,640
Obligations with maturities of one year or less	$200,945	$174,260	$131,112	$6,610,896	$6,157,517
Obligations with maturities greater than one year	7,748,606	7,072,973	6,783,097	—	—
Total liabilities	7,949,551	7,247,233	6,914,209	6,610,896	6,157,517
Protected members' equity	1	1	1	1	2
Capital stock and participation certificates	23,019	22,400	22,141	21,693	21,436
Unallocated surplus	1,757,944	1,651,528	1,548,350	1,446,639	1,347,685
Accumulated other comprehensive loss	(2,252)	(1,852)	(1,846)	—	—
Total members' equity	1,778,712	1,672,077	1,568,646	1,468,333	1,369,123
Total liabilities and members' equity	$9,728,263	$8,919,310	$8,482,855	$8,079,229	$7,526,640
STATEMENT OF INCOME DATA					
Net interest income	$234,647	$222,009	$209,387	$194,499	$181,169
Provision for credit losses	(13,793)	(17,324)	(22,120)	(20,161)	(3,273)
Patronage income	51,531	45,423	41,391	23,550	23,433
Financially related services income	10,584	9,812	10,263	9,479	9,514
Fee income	20,740	14,949	14,682	15,444	13,572
Other income, net	3,568	7,388	2,119	1,625	1,436
Non-interest expense	(99,140)	(95,948)	(95,075)	(90,700)	(85,985)
(Provision for) benefit from income taxes	(1,737)	(1,148)	(8,952)	(1,819)	1,221
Net income	$206,400	$185,161	$151,695	$131,917	$141,087
KEY FINANCIAL RATIOS					
For the Year					
Return on average assets	2.2%	2.1%	1.8%	1.7%	2.0%
Return on average members' equity	11.9%	11.3%	9.9%	9.3%	10.7%
Net interest income as a percentage of average earning assets	2.6%	2.6%	2.6%	2.6%	2.7%
Net charge-offs as a percentage of average loans	—	—	—	0.1%	—
At Year End					
Members' equity as a percentage of total assets	18.3%	18.7%	18.5%	18.2%	18.2%
Allowance for loan losses as a percentage of loans	1.0%	1.0%	0.9%	0.6%	0.5%
Capital ratios effective beginning January 1, 2017:					
Common equity tier 1 ratio	16.7%	16.4%	16.4%	N/A	N/A
Tier 1 capital ratio	16.7%	16.4%	16.4%	N/A	N/A
Total regulatory capital ratio	17.6%	17.3%	17.0%	N/A	N/A
Permanent capital ratio	16.9%	16.6%	16.5%	N/A	N/A
Tier 1 leverage ratio	17.7%	17.6%	17.5%	N/A	N/A
Capital ratios effective prior to 2017					
Permanent capital ratio	N/A	N/A	N/A	16.1%	16.0%
Total surplus ratio	N/A	N/A	N/A	15.8%	15.8%
Core surplus ratio	N/A	N/A	N/A	15.8%	15.8%
OTHER					
Patronage distribution payable to members	$100,000	$82,000	$50,000	$32,979	$35,272

The patronage distribution to members accrued for the year ended December 31, 2019, will be distributed in cash during the first quarter of 2020. The patronage distributions accrued for the years ended December 31, 2018, 2017, 2016, and 2015 were distributed in cash during the first quarter of each subsequent year. No income was distributed to members in the form of dividends, stock, or allocated surplus during these periods.

Management's Discussion and Analysis

GREENSTONE FARM CREDIT SERVICES, ACA

The following commentary reviews the consolidated financial condition and consolidated results of operations of GreenStone Farm Credit Services, ACA (the Association) and its subsidiaries, GreenStone Farm Credit Services, FLCA and GreenStone Farm Credit Services, PCA and provides additional specific information. The accompanying Consolidated Financial Statements and Notes to the Consolidated Financial Statements also contain important information about our financial condition and results of operations.

The Farm Credit System (System) is a nationwide system of cooperatively owned banks and associations established by Congress to meet the credit needs of American agriculture. As of January 1, 2020, the System consisted of three Farm Credit Banks, one Agricultural Credit Bank, and 68 customer-owned cooperative lending institutions (associations). The System serves all 50 states, Washington D.C., and Puerto Rico. This network of financial cooperatives is owned and governed by the rural customers the System serves.

AgriBank, FCB (AgriBank), a System Farm Credit Bank, and its District associations are collectively referred to as the AgriBank Farm Credit District (AgriBank District or the District). We are an association in the District.

The Farm Credit Administration (FCA) is authorized by Congress to regulate the System. The Farm Credit System Insurance Corporation (FCSIC) ensures the timely payment of principal and interest on Systemwide debt obligations and the retirement of protected borrower capital at par or stated value.

Due to the nature of our financial relationship with AgriBank, the financial condition and results of operations of AgriBank materially impact our members' investment. To request free copies of AgriBank financial reports, contact us at:

GreenStone Farm Credit Services, ACA	AgriBank, FCB
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Our Annual Report is available on our website no later than 75 days after the end of the calendar year and members are provided a copy of such report no later than 90 days after the end of the calendar year. The Quarterly Reports are available on our website no later than 40 days after the end of each calendar quarter. To request free copies of our Annual or Quarterly Reports, contact us as stated above.

Forward-Looking Information

This Annual Report includes forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties, and assumptions that are difficult to predict. Words such as "anticipate", "believe", "estimate", "may", "expect", "intend", "outlook", "could", "should", "will" and similar expressions are used to identify such forward-looking statements. These statements reflect our current views with respect to future events. However, actual results may differ materially from our expectations due to a number of risks and uncertainties which may be beyond our control. These risks and uncertainties include, but are not limited to:

- Political (including trade policies), legal, regulatory, financial markets, and economic conditions and developments in the United States (U.S.) and abroad
- Economic fluctuations in the agricultural, international, and farm-related business sectors
- Weather-related, disease, and other adverse climatic or biological conditions that periodically occur and can impact agricultural productivity and income
- Changes in U.S. government support of the agricultural industry and the System as a government-sponsored enterprise, as well as investor and rating agency reactions to events involving the U.S. government, other government-sponsored enterprises, and other financial institutions
- Actions taken by the Federal Reserve System in implementing monetary policy
- Credit, interest rate, and liquidity risks inherent in our lending activities
- Changes in our assumptions for determining the allowance for loan losses, other-than-temporary impairment, and fair value measurements
- Industry outlooks for agricultural conditions

Agricultural and Economic Conditions

The U.S. economy grew at a modest pace in 2019, despite headwinds from trade uncertainty. The U.S. Department of Commerce reported real Gross Domestic Product (GDP) at an annual rate of 2.1% for the fourth quarter of 2019. The increase in real GDP reflected positive contributions from personal consumption expenditures, federal government spending, residential fixed investment, exports and state and local government spending. These increases were partially offset by a negative contribution from private inventory investment and nonresidential fixed investment. Imports, which are a subtraction to GDP, decreased.

The December 2019 report on job growth showed non-farm payroll rose by 145,000 jobs and the unemployment rate was unchanged from November 2019 at 3.5%. Notable job gains occurred in retail trade and health care. In addition to the strong number of jobs, the average hourly earnings also showed strength, with wages in December 2019 increasing by 2.9% compared to the prior year. The combination of strong jobs and wage growth bodes well for the U.S. economy, particularly consumer spending, moving into 2020.

The housing market had strong results in 2019 and looks to carry that momentum into 2020. In November 2019, sales of new homes had risen in two of the prior three months and were on the strongest pace since August 2007. Sales of existing homes improved as well, with single-family homes accounting for practically all of the increase. These trends have provided a boost to homebuilder confidence, with single-family starts rising for five months in a row and growing at the strongest pace since October 2007. The low interest rate environment is credited as the main driving force behind the improvement in the housing market, and with the Federal Open Market Committee (FOMC) indicating any future rate increases are on hold, these positive housing trends are anticipated to continue in 2020.

The Institute of Supply Management's Purchasing Managers Index registered at 48.1% for November 2019, which is the fourth straight month of contraction for the index. A reading above 50.0% indicates that the manufacturing economy is generally expanding; below 50.0% indicates that it is generally contracting. The November 2019 figure of 48.1% is a decrease of 0.2% from the October 2019 reading. The report indicates that while the U.S. economy is still relatively strong, the rate of economic expansion is showing signs of slowing down.

At the December 2019 meeting, the FOMC left the federal funds target rate unchanged, keeping the range at 1.50%-1.75%. This was after the rate was cut three meetings in a row by 0.25% each time, following four rate increases in 2018. The FOMC stated the economy was growing at a moderate rate and the job market and consumer confidence remains strong.

Brent crude spot prices are forecast to average $64 a barrel in 2019 and $60 a barrel in 2020, according to the U.S. Energy Information Administration (EIA). The projected decrease in 2020 oil prices is due to increased global inventories. EIA also indicated that the U.S. is on pace to be a net exporter of petroleum in 2019 for the first time since petroleum imports and exports began being reported in 1949.

Exports of U.S. agricultural products in 2020 are projected at $139.0 billion, a $2.0 billion increase from the August 2019 forecast. The improvement is driven by higher soybean, pork, and dairy export forecasts. Beef, grain, and feed exports are forecasted lower due to strong competition. Agricultural exports to China are forecast at $11.0 billion, a $3.5 billion increase from August, based upon higher expected soybean and pork sales.

The United States-Mexico-Canada (USMCA) trade agreement was signed in November 2018 by all three presidents and was ratified in the United States in January 2020. Ratification of the USMCA is expected to further increase the future economic growth of Canada and Mexico. Also in January 2020, China agreed to buy as much as $50 billion in U.S. farm goods.

The dairy industry experienced a bit of recovery in terms of market prices and profitability in 2019. The average Class III price in 2019 was estimated to be $17.00 per hundredweight (cwt), driven by higher prices for cheese and whey, and on pace to be the highest Class III price since 2014. The all-milk price for 2019 is forecast at $18.60 per cwt, which is a significant improvement from the 2018 all-milk price of $16.26 per cwt. In addition to the stronger milk prices received, dairy farmers are also receiving higher cull cow prices, with an average 2019 price of $55.77 per cwt compared to $50.01 per cwt for 2018. In 2019, the U.S. dairy herd decreased to its smallest size since early 2016 (9.3 million cows).

Total pork production in 2019 is expected to be 27.6 billion pounds, a 5.0% increase over 2018 production. Hog prices are also 4.5% higher than 2018 levels with an average of $48 per cwt. Hog prices are expected to continue their improvement into 2020 with a forecasted average price of $57 per cwt, due to increased foreign demand for U.S. pork, particularly by Asian countries whose hog herds are infected by African swine fever. In 2019, exports to China/Hong Kong more than tripled compared to a year ago.

Broiler production is estimated at 43.7 billion pounds for 2019, which is a 2.7% increase from 2018. The increase is driven primarily by increased slaughter rates and by a slight increase in bird weights. This trend is anticipated to continue into 2020 with a 1.8% increase in production forecasted. The whole bird wholesale price averaged 88.5 cents per pound in 2019, which is a 9.5% decrease from 2018. The annual average price for 2020 is forecasted at 91.0 cents per pound, but the increase in production is anticipated to put pressure on prices in late 2020.

Wholesale egg prices averaged 92.0 cents per dozen in 2019, which was 33.1% below the average price in 2018. Producers with exposure to market egg price volatility faced steep losses during most of 2019 due to well-below average prices. The forecast for 2020 egg prices are 99.0 cents per dozen.

Whole frozen turkey prices averaged 88.5 cents per pound in 2019, which equals a 10.3% increase over last year. This movement indicates that prices have returned to their historical trends after being below average in 2018.

Net farm income is forecasted to equal $92.5 billion in 2019, an $8.5 billion (10.2%) increase from 2018. Crop receipts are forecasted to be $197.4 billion in 2019, increasing $1.9 billion (1.0%). Sector leaders include corn and vegetables/melons, which are offset by lower receipts for soybeans and wheat. Total animal/animal product receipts are expected to rise just $0.3 billion (0.1%), with milk and hogs forecast to increase, while receipts for poultry and eggs are forecast to decrease. Overall, lower expected quantities of agricultural products will be marketed in 2019, but this is more than offset by the positive effect of higher prices, which is leading to the overall increase in cash receipts.

Direct payments are forecast to increase by $8.8 billion (64.0%) to $22.4 billion in 2019. This overall increase came from higher payments in the Market Facilitation Program ($9.2 billion increase) along with a smaller increase in payments from supplemental and ad hoc disaster assistance programs.

Farm equity/wealth is forecast to rise 2.2% in 2019 to $2.68 trillion. The increase is driven primarily by a 2.1% increase in real estate valuations as farm real estate assets account for 82.7% of 2019 farm sector assets. The value of non-real estate farm assets is expected to increase 3.6%, with increases in financial assets of $16.0 billon (3.6%), and an increase in machinery and vehicles of $8.3 billion (3.0%), which more than offsets declines in inventories of $5.9 billion (3.4%). Farm real estate debt is forecast to reach $256.9 billion, a 4.6% increase, and represents 61.8% of total farm debt. Non-real estate debt is expected to only increase 1.4% to $158.6 billion.

Michigan's farm real estate average value per acre was $4,960 in 2019, which was unchanged from 2018. Wisconsin's average value per acre was $4,950 in 2019, which was a 1.0% increase from 2018.

Loan Portfolio

Total loans were $9.4 billion at December 31, 2019, an increase of $778.5 million from December 31, 2018. The components of total loans for the prior three years were as follows:

Components of Loans
(in thousands)

As of December 31	2019	2018	2017
Accrual loans:			
Real estate mortgage	$5,576,865	$5,212,450	$4,890,254
Production and intermediate term	1,969,256	2,004,278	2,079,463
Agribusiness	1,270,733	895,747	851,382
Other	508,310	409,226	345,153
Nonaccrual loans	72,961	97,884	46,004
Total loans	$9,398,125	$8,619,585	$8,212,256

The other category is primarily composed of rural residential real estate and rural infrastructure related loans.

As part of the AgriBank Asset Pool program (managed loans), we have sold participation interests in real estate loans to AgriBank. Our total participation interests in this program were $126.1 million, $152.4 million, and $179.6 million at December 31, 2019, 2018, and 2017, respectively.

On December 1, 2018, we sold to AgriBank our participation interest in production and intermediate-term loans with ProPartners Financial (ProPartners) alliance totaling $189.0 million. We invested capital of $24.0 million in the ProPartners pool to retain a relatively equal ownership interest of 15.7%. We had $154.2 million of ProPartners loan volume at December 31, 2017. AgriBank immediately purchases a 100% participation interest in all new ProPartners loans; therefore, we had no remaining ProPartners balance at December 31, 2019, or 2018.

Our growth in owned and managed loans for 2019 was 8.6%. The level of growth was higher than the 4.5% growth rate experienced in 2018. Growth was positively impacted by continued historically low interest rates in both 2019 and 2018. Owned and managed mortgage volume increased 9.7% over December 2018. The year-end commercial loan volume increased by 5.3% when compared to December 2018. We experienced loan growth in all market segments, as our three major segments each showed positive growth. Our Traditional Farm segment, including our large commercial loans, grew 4.2% in 2019, compared to 3.0% in 2018. Our Capital Markets segment experienced a 22.0% growth rate in 2019 compared to an 18.9% growth rate in 2018. Our Country Living segment growth rate was 9.6% in 2019 compared to 5.7% in 2018. This growth is partially reflective of the improving economic conditions in our marketplace.

The outlook for overall portfolio growth for 2020 will have similar challenges to our experience in 2019. Increased competitive pressure is expected to create challenges to our growth in the Capital Markets segment. New entrants into the agricultural lending market will continue to put pressure on our growth level and returns in this segment. We expect low to moderate demand for expansion capital in dairy and some animal protein sectors during 2020. The level of this demand will depend on the expected profit margins in these segments, which look challenged today due to lower market prices. We are also seeing a slight decline in land values in our regions. Combined with low cash crop prices, growth in our Traditional Farm segment, including our large commercial loans, will also be challenged. The general non-farm economy that has been in place in our territory for the last several years continues to improve. This should provide further opportunities in the Country Living segment, which is experiencing high levels of competition with regard to pricing and new competitors continuing to reach the rural segment. Overall, we expect all market segments to show positive growth in 2020, with the Capital Market segments providing the highest growth rate. However, we also expect to see continuing loan pricing pressure within all market segments.

We offer variable, fixed, capped, indexed, and adjustable interest rate loan programs and fixed interest rate lease programs to our borrowers. We determine interest margins charged on each lending program based on cost of funds, market conditions, and the need to generate sufficient earnings.

PORTFOLIO DISTRIBUTION

We are chartered to operate throughout Michigan and in certain counties in Wisconsin. Our portfolio volume is fairly evenly distributed among the territory with no material concentrations in any one county. This is evidenced by there being no individual county representing greater than 5.0% of our total loan volume at December 31, 2019.

Agricultural Concentrations

As of December 31	2019	2018	2017
Dairy	23.2%	24.5%	24.6%
Cash crops	19.4	20.4	20.9
Country home living	16.9	16.7	16.9
Agribusiness	7.3	4.9	4.5
Timber	4.4	4.5	4.3
Fruit	3.6	3.3	3.2
Livestock	2.9	3.0	2.9
Hogs	2.8	2.7	3.1
Poultry	2.5	2.6	2.7
Potatoes	1.8	1.8	1.9
Vegetables	1.7	1.8	1.5
Sugar beets	1.7	1.7	1.7
Landlords	1.5	1.7	1.8
Broilers	1.4	0.9	1.0
Greenhouse and nursery	1.3	1.3	1.6
Grain and field beans	1.2	1.4	1.1
Government guarantee	0.3	0.3	0.3
Other	6.1	6.5	6.0
Total	100.0%	100.0%	100.0%

Commodities are based on the borrower's primary intended commodity at the time of loan origination and may change due to borrower business decisions as a result of changes in weather, prices, input costs, and other circumstances.

Our level of portfolio diversification has not changed materially over the last year and continues to be one of our portfolio strengths. Due mainly to our diversity in commodities and the varied operating cycles that those commodities experience, our commercial volume levels do not show significant levels of seasonality.

PORTFOLIO CREDIT QUALITY

The credit quality of our loan portfolio remained fairly stable throughout 2019. Adversely classified owned assets remained unchanged from December 31, 2018 to December 31, 2019, at 3.5% of the portfolio. Adversely classified assets are assets that we identified as showing some credit weakness outside normal credit standards. The credit quality of our core market of traditional production farm loans remained at satisfactory levels. Weaker borrowers in our dairy and cash crop portfolios continued to be challenged financially during 2019. We have considered portfolio credit quality in assessing the reasonableness of our allowance for loan losses.

The resulting level of credit quality, when combined with our earnings and addition to capital surplus, resulted in an adverse asset to risk funds ratio of 20.2% at December 31, 2019. This ratio has increased 0.6% since December 31, 2018, but remains below our goal of maintaining this ratio at or below 25.0%. This ratio is a good measure of our risk-bearing ability.

In certain circumstances, Federal Agricultural Mortgage Corporation (Farmer Mac) and other government agency guarantee programs are used to reduce the risk of loss. At December 31, 2019, $355.4 million of our loans were, to some level, guaranteed under these programs. The guaranteed loan volume increased from $308.4 million at December 31, 2018.

RISK ASSETS

Components of Risk Assets
(dollars in thousands)

As of December 31	2019	2018	2017
Loans:			
Nonaccrual	$72,961	$97,884	$46,004
Accruing restructured	3,364	3,331	3,566
Accruing loans 90 days or more past due	—	79	262
Total risk loans	76,325	101,294	49,832
Acquired property	1,577	1,766	1,572
Total risk assets	$77,902	$103,060	$51,404
Total risk loans as a percentage of total loans	0.8%	1.2%	0.6%
Nonaccrual loans as a percentage of total loans	0.8%	1.1%	0.6%
Current nonaccrual loans as a percentage of total nonaccrual loans	53.5%	91.2%	83.6%
Total delinquencies as a percentage of total loans	0.5%	0.3%	0.3%

Note: Accruing loans include accrued interest receivable.

Our risk assets remained at acceptable levels during 2019. Total risk loans as a percentage of total loans remains well within our established risk management guidelines.

The $24.9 million decrease in nonaccrual volume from December 31, 2018 was primarily due to several nonaccrual dairy customers that were sold to other dairy farmers during 2019. As of December 31, 2019, 46.2% of the nonaccrual loan portfolio was comprised of dairy loans, 13.0% food processing cooperative loans, and 12.7% crop farm loans.

At December 31, 2019, 93.5% of our accruing restructured loans were current in their payment status.

Our accounting policy requires accruing loans past due 90 days to be transferred into nonaccrual status unless adequately secured and in the process of collections. Based on our analysis, all loans 90 days or more past due and still accruing interest were eligible to remain in accruing status.

Acquired property inventory decreased $189 thousand from December 31, 2018 to $1.6 million at December 31, 2019. There were $1.6 million of properties sold and $21 thousand of charge offs, which were partially offset by $1.5 million of loans transferred in.

ALLOWANCE FOR LOAN LOSSES

The allowance for loan losses is an estimate of losses on loans inherent in our portfolio as of the financial statement date. We determine the appropriate level of allowance for loan losses based on the periodic evaluation of factors such as loan loss history, estimated probability of default, estimated loss severity, portfolio quality, and current economic and environmental conditions.

Allowance Coverage Ratios

As of December 31	2019	2018	2017
Allowance as a percentage of:			
Loans	1.0%	1.0%	0.9%
Nonaccrual loans	130.8%	85.9%	157.9%
Total risk loans	125.1%	83.0%	145.8%
Net charge-offs as a percentage of average loans	—	—	—
Adverse assets to total regulatory capital	20.1%	19.5%	18.6%

The allowance for loan losses increased $11.4 million from December 31, 2018 to December 31, 2019, to a total of $95.5 million. This was mostly due to a provision for loan losses of $12.5 million recorded in 2019. Included in our allowance is additional general industry reserves for our dairy and cash grain portfolios due to low commodity prices during the past several years, primarily the milk price. While prices have improved recently, the impact of below average prices over the past several years have placed financial strain on dairy and cash grain customers, especially the weaker borrowers. The additional general industry reserve for the dairy portfolio increased $7.8 million from December 31, 2018 to December 31, 2019, to a total of $39.3 million. The additional general industry reserve for the cash grain portfolio increased $2.8 million from December 31, 2018 to December 31, 2019, to a total of $12.4 million. In our opinion, the allowance for loan losses was reasonable in relation to the risk in our loan portfolio at December 31, 2019.

Additional loan information is included in Notes 3, 11, 12, and 13 to the accompanying Consolidated Financial Statements.

Investment Securities

In addition to loans, we held investment securities. Investment securities totaled $9.0 million, $7.7 million, and $12.4 million at December 31, 2019, 2018, and 2017, respectively. Our investment securities consisted of securities backed by pools of loans fully guaranteed by the Small Business Administration. The securities have been classified as held-to-maturity.

The investment portfolio is evaluated for other-than-temporary impairment. For the years ended December 31, 2019, 2018, and 2017, we have not recognized any impairment on our investment portfolio.

Additional investment securities information is included in Note 5 to the accompanying Consolidated Financial Statements.

Results of Operations

Profitability Information
(dollars in thousands)

For the year ended December 31	2019	2018	2017
Net income	$206,400	$185,161	$151,695
Return on average assets	2.2%	2.1%	1.8%
Return on average members' equity	11.9%	11.3%	9.9%

Changes in the chart above relate directly to:

- Changes in income discussed below
- Changes in assets discussed in the Loan Portfolio and Investment Securities sections
- Changes in capital discussed in the Capital Adequacy section

Changes in Significant Components of Net Income
(in thousands)

For the year ended December 31	2019	2018	2017
Net interest income	$234,647	$222,009	$209,387
Provision for credit losses	(13,793)	(17,324)	(22,120)
Patronage income	51,531	45,423	41,391
Financially related services income	10,584	9,812	10,263
Fee income	20,740	14,949	14,682
Allocated insurance reserve accounts distribution	1,997	4,779	—
Acquired property income, net	413	692	276
Other non-interest income	1,158	1,917	1,843
Non-interest expense	(99,140)	(95,948)	(95,075)
Provision for income taxes	(1,737)	(1,148)	(8,952)
Net income	$206,400	$185,161	$151,695

Changes in Significant Components of Net Income
(in thousands)

Increase (decrease) in net income	2019 vs 2018	2018 vs 2017
Net interest income	$12,638	$12,622
Provision for credit losses	3,531	4,796
Patronage income	6,108	4,032
Financially related services income	772	(451)
Fee income	5,791	267
Allocated insurance reserve accounts distribution	(2,782)	4,779
Acquired property income, net	(279)	416
Other non-interest income	(759)	74
Non-interest expense	(3,192)	(873)
Provision for income taxes	(589)	7,804
Net income	$21,239	$33,466

NET INTEREST INCOME

Changes in Net Interest Income
(in thousands)

	2019 vs 2018	2018 vs 2017
Changes in volume	$11,393	$12,977
Changes in interest rates	(135)	2,184
Changes in nonaccrual income and other	1,380	(2,539)
Net change	$12,638	$12,622

Net interest income included income on nonaccrual loans that totaled $2.7 million, $1.6 million, and $4.1 million in 2019, 2018, and 2017, respectively. Nonaccrual income is recognized when received in cash, collection of the recorded investment is fully expected, and prior charge-offs have been recovered.

Net interest margin (net interest income as a percentage of average earning assets) was 2.6% in 2019, 2018, and 2017, respectively. We expect margins to decrease slightly in the future due to higher funding costs provided by AgriBank.

PROVISION FOR CREDIT LOSSES

During 2019, a provision for loan losses of $12.5 million was recorded. In addition, a $1.3 million provision for credit losses was recorded on unfunded loan commitments. This resulted in a total provision for credit losses of $13.8 million for 2019, which was primarily due to added risk in our dairy portfolio.

Additional discussion is included in Note 3 to the accompanying Consolidated Financial Statements.

NON-INTEREST INCOME

The increase in non-interest income was primarily due to increases in patronage income and fee income, partially offset by a decrease in Allocated Insurance Reserve Accounts distribution (AIRA).

We may receive patronage from AgriBank and other Farm Credit Institutions. Patronage distributions from AgriBank and other Farm Credit Institutions are declared solely at the discretion of each institution's Board of Directors.

Patronage Income
(in thousands)

For the year ended December 31	2019	2018	2017
Wholesale patronage	$40,872	$37,514	$34,210
Pool program patronage	7,895	5,193	4,849
AgDirect partnership distribution	2,662	2,634	2,253
Other Farm Credit Institutions	102	82	79
Total patronage income	$51,531	$45,423	$41,391
Form of patronage distributions:			
Cash	$32,339	$45,423	$41,391
Stock	19,192	—	—
Total patronage income	$51,531	$45,423	$41,391

Wholesale patronage income is based on the average balance of our note payable to AgriBank. The patronage rates were 55.9 basis points, 54.1 basis points, and 52.1 basis points in 2019, 2018, and 2017, respectively. AgriBank may distribute patronage in the form of stock or cash as determined by AgriBank's capital plan. A portion of the patronage in 2019 was paid in allocated stock. All patronage was paid in cash during 2018 and 2017. See the Relationship with AgriBank section for further discussion on patronage income.

We have participated in pool programs in which we sell participation interests in certain loans to AgriBank. As part of these programs, we received patronage income in an amount that approximated the net earnings of the loans, less certain expenses. Net earnings represents the net interest income associated with these loans adjusted for certain fees and costs specific to the related loans as well as adjustments deemed appropriate by AgriBank related to the credit performance of the loans, as applicable. The patronage recorded in 2019 and 2018 included $47 thousand and $141 thousand, respectively, of our share of distributions from the AIRA related to the participations sold to AgriBank.

We also received a partnership distribution resulting from our participation in the AgDirect trade credit financing program. The AgDirect trade credit financing program is facilitated by another AgriBank District association through a limited liability partnership (AgDirect, LLP), in which we are a partial owner. AgriBank purchases a 100% participation interest in the program loans from AgDirect, LLP. Patronage distributions are paid to AgDirect, LLP, which in turn pays partnership distributions to the participating associations. We received a partnership distribution in an amount that approximated our share of the net earnings of the loans in the program, adjusted for required return on capital and servicing and origination fees.

The increase in fee income was primarily due to an increase in loan original fees along with an increase in loan conversion fees, which was due to opportunities created by lower long-term interest rates in 2019 compared to 2018.

The decrease in AIRA was due to our share of distributions from AIRA of $2.0 million in 2019, compared to $4.8 million in 2018. The AIRA was established by the FCSIC when premiums collected increased the level of the Insurance Fund beyond the required secured base amount of 2.0% of insured debt. There were no AIRA distributions in 2017.

NON-INTEREST EXPENSE

Components of Operating Expenses
(dollars in thousands)

For the year ended December 31	2019	2018	2017
Salaries and employee benefits	$67,452	$63,445	$59,382
Purchased and vendor services	4,627	4,081	4,614
Communications	1,662	1,601	1,569
Occupancy and equipment	10,374	9,593	8,902
Advertising and promotion	4,102	2,959	2,719
FCA examination	2,213	2,067	1,989
Farm Credit System insurance	6,718	6,354	9,963
Other	1,992	4,641	5,050
Other non-interest expense	—	1,207	887
Total non-interest expenses	$99,140	$95,948	$95,075
Operating rate	1.1%	1.1%	1.2%

The increase in non-interest expenses from 2018 to 2019 was primarily related to increases in salaries and employee benefits and advertising and promotion. This was partially offset by a decrease in other expense, primarily due to the change in ownership structure on our investment in ProPartners as ProPartners expenses were shared by the owners prior to December 1, 2018 and recorded as miscellaneous expense.

PROVISION FOR INCOME TAXES

The variance in provision for income taxes was related to our estimate of taxes based on taxable income of the ACA entity. Patronage distributions to members reduced our tax liability in 2019, 2018, and 2017.

Additional discussion is included in Note 9 to the accompanying Consolidated Financial Statements.

Funding and Liquidity

We borrow from AgriBank, under a note payable, in the form of a line of credit, as described in Note 7 to the accompanying Consolidated Financial Statements. This line of credit is our primary source of liquidity and is used to fund operations and meet current obligations. At December 31, 2019, we had $1.5 billion available under our line of credit. We generally apply excess cash to this line of credit. Due to the cooperative structure of the Farm Credit System and as we are a stockholder of AgriBank, we expect this borrowing relationship to continue into the foreseeable future. Our other source of lendable funds is from equity.

Note Payable Information
(dollars in thousands)

For the year ended December 31	2019	2018	2017
Average balance	$7,309,096	$6,940,346	$6,574,556
Average interest rate	2.8%	2.5%	2.0%

The repricing attributes of our line of credit generally correspond to the repricing attributes of our loan portfolio, which significantly reduces our market interest rate risk. However, we maintain some exposure to interest rates, including London Inter-bank Offered Rate (LIBOR), primarily from loans to customers which may not have a component of our line of credit with an exact repricing attribute. Regulators in the U.S. and worldwide have expressed their desire to phase out LIBOR, and other inter-bank offered rates, by the end of 2021. They have indicated that the reliability and stability of LIBOR as a benchmark rate after 2021 cannot be assured. The Farm Credit System has established a LIBOR transition workgroup to provide leadership in addressing the LIBOR phase-out across system entities. While many factors can impact our net interest income, we expect that financial performance will remain relatively consistent under most interest rate environments over the next 12 months.

We have entered into a Standby Commitment to Purchase Agreement with Farmer Mac, a System institution, to help manage credit risk. If a loan covered by the agreement goes into default, subject to certain conditions, we have the right to sell the loan to Farmer Mac. This agreement remains in place until the loan is paid in full. The guaranteed volume of loans subject to the purchase agreement was $5.5 million, $6.4 million, and $7.5 million at December 31, 2019, 2018, and 2017, respectively. We paid Farmer Mac commitment fees totaling $31 thousand, $35 thousand, and $41 thousand in 2019, 2018, and 2017, respectively. These amounts are included in "Other operating expenses" in the Consolidated Statements of Comprehensive Income. As of December 31, 2019, no loans have been sold to Farmer Mac under this agreement.

Capital Adequacy

Total members' equity was $1.8 billion, $1.7 billion, and $1.6 billion at December 31, 2019, 2018, and 2017, respectively. Total members' equity increased $106.6 million from December 31, 2018, primarily due to net income for the year partially offset by patronage distribution accruals. The change in accumulated other comprehensive loss is the amortization impact of prior service cost and unamortized actuarial gain/loss related to the Pension Restoration Plan. Additional Pension Restoration Plan information is included in Note 10 to the accompanying Consolidated Financial Statements.

The FCA Regulations require us to maintain minimums for our common equity tier 1, tier 1 capital, total regulatory capital, and permanent capital risk-based capital ratios. In addition, the FCA requires us to maintain minimums for our non-risk-adjusted ratios of tier 1 leverage and unallocated retained earnings and equivalents leverage.

Regulatory Capital Requirements and Ratios

As of December 31	2019	2018	2017	Regulatory Minimums	Capital Conservation Buffer	Total
Risk-adjusted:						
Common equity tier 1 ratio	16.7%	16.4%	16.4%	4.5%	2.5%*	7.0%
Tier 1 capital ratio	16.7%	16.4%	16.4%	6.0%	2.5%*	8.5%
Total regulatory capital ratio	17.6%	17.3%	17.0%	8.0%	2.5%*	10.5%
Permanent capital ratio	16.9%	16.6%	16.5%	7.0%	N/A	7.0%
Non-risk-adjusted:						
Tier 1 leverage ratio	17.7%	17.6%	17.5%	4.0%	1.0%	5.0%
Unallocated retained earnings and equivalents leverage ratio	18.8%	18.6%	18.4%	1.5%	N/A	1.5%

*The 2.5% capital conservation buffer over risk-adjusted ratio minimums was phased in over three years under the FCA capital requirements. The phase in period ended December 31, 2019.

Our capital plan is designed to maintain an adequate amount of surplus and allowance for loan losses which represents our reserve for adversity prior to impairment of stock. We manage our capital to allow us to meet member needs and protect member interests, both now and in the future.

Capital ratios are directly impacted by changes in capital, assets, and off-balance sheet commitments. Refer to the Loan Portfolio and the Investment Securities sections for further discussion of the changes in assets. Additional discussion of regulatory ratios and members' equity information is included in Note 8 to the accompanying Consolidated Financial Statements.

In addition to these regulatory requirements, we establish an optimum total regulatory capital target range. This target allows us to maintain a capital base adequate for future growth and investment in new products and services. The target is subject to revision as circumstances change. Our optimum total regulatory capital target range was 13.5% to 18.5% as of December 31, 2019.

If the capital ratios fall below the total requirements, including the buffer amounts, capital distributions (equity redemptions, dividends, and patronage) and discretionary senior executive bonuses are restricted or prohibited without prior FCA approval. We do not foresee any events that would result in this prohibition in 2020.

Relationship with AgriBank

BORROWING

We borrow from AgriBank to fund our lending operations in accordance with the Farm Credit Act. Approval from AgriBank is required for us to borrow elsewhere. A General Financing Agreement (GFA), as discussed in Note 7 to the accompanying Consolidated Financial Statements, governs this lending relationship.

The components of cost of funds under the GFA include:

- A marginal cost of debt component
- A spread component, which includes cost of servicing, cost of liquidity, and bank profit
- A risk premium component, if applicable

In the periods presented, we were not subject to the risk premium component. Certain factors may impact our cost of funds, which primarily include market interest rate changes impacting marginal cost of debt as well as changes to pricing methodologies impacting the spread components described above.

The marginal cost of debt approach simulates matching the cost of underlying debt with similar terms as the anticipated terms of our loans to borrowers. This approach substantially protects us from market interest rate risk. We may occasionally engage in funding strategies that result in limited interest rate risk with approval by AgriBank's Asset/Liability Committee.

INVESTMENT

We are required to invest in AgriBank capital stock as a condition of borrowing. This investment may be in the form of purchased stock or stock representing distributed AgriBank surplus. During 2019, we were required by AgriBank to maintain an investment equal to 2.25% of the average quarterly balance of our note payable, with an additional amount required on association growth in excess of a targeted growth rate, if the District is also growing above a targeted growth rate. Effective January 1, 2020, the required rate was increased to 2.50% with similar growth rate requirements as 2019.

We are also required to hold additional investment in AgriBank based on contractual agreements under pool programs.

As an AgDirect, LLP partnering association, we are required to purchase stock in AgDirect, which purchases an equivalent amount of stock in AgriBank. Specifically, the AgDirect trade credit financing program is required to own stock in AgriBank in the amount of 6.0% of the AgDirect program's outstanding participation loan balance at quarter end plus 6.0% of the expected balance to be originated during the following quarter.

PATRONAGE

AgriBank's 2019 capital plan is intended to provide for adequate capital at AgriBank under capital regulations as well as to create a path to long-term capital optimization within the AgriBank District. The plan optimizes capital at AgriBank; distributing available AgriBank earnings in the form of patronage, either cash or stock. The plan is designed to maintain capital adequacy such that sufficient earnings will be retained in the form of unallocated retained earnings and allocated stock to meet the leverage ratio target and other regulatory or policy constraints prior to any cash patronage distributions.

We receive the below types of discretionary patronage from AgriBank. Patronage income earned may be paid in cash and AgriBank stock. Patronage income for 2019 was paid in cash and AgriBank stock. Patronage income in 2018 and 2017 was paid in cash.

- Wholesale patronage which includes:
  - Patronage on the annual average daily balance of our note payable with AgriBank
  - Equalization patronage based on our excess stock in AgriBank
- Pool program patronage based on the net earnings of loan participation interests sold to AgriBank
- Distributions based on our share of the net earnings of the loans in the AgDirect trade credit financing program, adjusted for required return on capital and servicing and origination fees

PURCHASED SERVICES

We purchase various services from AgriBank and SunStream Business Services (SunStream), a division of AgriBank. The services include certain financial and retail systems, financial reporting services, tax reporting services, technology services, and insurance services. The total cost of services we purchased from AgriBank was $2.1 million, $1.9 million, and $1.9 million in 2019, 2018, and 2017, respectively. In January 2020, the FCA provided regulatory approval for the formation of a separate service entity, SunStream. Subsequent to the formation of SunStream, effective April 1, 2020, we will continue to purchase services from SunStream.

IMPACT ON MEMBERS' INVESTMENT

Due to the nature of our financial relationship with AgriBank, the financial condition and results of operations of AgriBank materially impact our members' investment.

Other Relationships and Programs

RELATIONSHIPS WITH OTHER FARM CREDIT INSTITUTIONS

ProPartners Financial: We participate in ProPartners Financial (ProPartners) with certain other associations in the Farm Credit System to provide producer financing through agribusinesses that sell crop inputs. ProPartners is directed by representatives from participating associations. Through November 30, 2018, the income, expense, and credit risks were allocated based on each association's participation interest of the ProPartners volume. Each association's allocation was established based on mutual agreement of the owners. On December 1, 2018, we sold to AgriBank our entire interest in the loans associated with ProPartners. As part of this program we receive discretionary patronage income from AgriBank that approximates the net earnings of the loans. AgriBank immediately purchases a 100% participation interest in all new ProPartners loans.

Federal Agricultural Mortgage Corporation: We have entered into a Standby Commitment to Purchase Agreement with Farmer Mac. This agreement allows us to sell loans identified under the agreement to Farmer Mac. Refer to the Funding and Liquidity section for further discussion of this agreement.

CentRic Technology Collaboration: We participate in CentRic Technology Collaboration (CTC) with certain other AgriBank District associations. The CTC facilitates the development and maintenance of certain retail technology systems essential to providing credit and other services to our members. The CTC operations are governed by representatives of each participating association. The expenses of CTC are allocated to each of the participating associations based on an agreed upon formula. The systems developed are owned by each of the participating associations.

As the facilitating association for CTC, we are compensated to provide various support functions. This includes support for technology, human resources, accounting, payroll, reporting, and other finance functions.

Farm Credit Leasing Services Corporation: We have an agreement with Farm Credit Leasing Services Corporation (FCL), a System service corporation, which specializes in leasing products and provides industry expertise. Leases are originated and serviced by FCL and we purchase a participation interest in the cash flows of the transaction. This arrangement provides our members with a broad selection of product offerings and enhanced lease expertise.

CoBank, ACB: We have a relationship with CoBank, ACB (CoBank), a System bank, which involves purchasing and selling participation interests in loans. As part of this relationship, our equity investment in CoBank was $290 thousand, $227 thousand, and $171 thousand at December 31, 2019, 2018, and 2017, respectively.

Farm Credit Foundations: We have a relationship with Farm Credit Foundations (Foundations), a System service corporation, which involves purchasing human resource information systems, and benefit, payroll, and workforce management services. As of December 31, 2019, 2018, and 2017, our investment in Foundations was $59 thousand. The total cost of services we purchased from Foundations was $419 thousand, $344 thousand, and $322 thousand in 2019, 2018, and 2017, respectively.

UNINCORPORATED BUSINESS ENTITIES (UBES)

In certain circumstances we may establish separate entities to acquire and manage complex collateral, primarily for legal liability purposes.

AgDirect, LLP: We participate in the AgDirect trade credit financing program, which includes origination and refinancing of agriculture equipment loans through independent equipment dealers. The program is facilitated by another AgriBank District association through a limited liability partnership in which we are a partial owner. Our investment in AgDirect, LLP, was $16.6 million, $16.4 million, and $16.6 million at December 31, 2019, 2018, and 2017, respectively.

PROGRAMS

We are involved in a number of programs designed to improve our credit delivery, related services, and marketplace presence.

AgDirect, LLP: We participate in the AgDirect trade credit financing program. Refer to the UBEs section for further discussion on this program.

AgriSolutions: We had an alliance with AgriSolutions, a farm software and consulting company, to provide farm records, income tax planning and preparation services, farm business consulting, and producer education seminars. We ended this alliance effective December 31, 2019.

Farm Cash Management: We offer Farm Cash Management to our members. Farm Cash Management links members' revolving lines of credit with an AgriBank investment bond to optimize members' use of funds.

REGULATORY MATTERS

INVESTMENT SECURITIES ELIGIBILITY

On September 19, 2019, the FCA issued a proposed regulation regarding investment eligibility. The proposed regulation amends the regulations that became effective January 1, 2019, and would allow associations to purchase and hold portions of certain loans that non-Farm Credit System institutions originate and sell in the secondary market, and that the United States Department of Agriculture unconditionally guarantees as to the timely payment of principal and interest. The comment period for this proposed rulemaking ended on November 18, 2019, and the final regulation has not yet been issued.

Report of Management

GREENSTONE FARM CREDIT SERVICES, ACA

We prepare the Consolidated Financial Statements of GreenStone Farm Credit Services, ACA (the Association) and are responsible for their integrity and objectivity, including amounts that must necessarily be based on judgments and estimates. The Consolidated Financial Statements have been prepared in conformity with accounting principles generally accepted in the United States of America. The Consolidated Financial Statements, in our opinion, fairly present the financial condition of the Association. Other financial information included in the Annual Report is consistent with that in the Consolidated Financial Statements.

To meet our responsibility for reliable financial information, we depend on accounting and internal control systems designed to provide reasonable, but not absolute assurance that assets are safeguarded and transactions are properly authorized and recorded. Costs must be reasonable in relation to the benefits derived when designing accounting and internal control systems. Financial operations audits are performed to monitor compliance. PricewaterhouseCoopers LLP, our independent auditors, audit the Consolidated Financial Statements. They also consider internal controls to the extent necessary to design audit procedures that comply with auditing standards generally accepted in the United States of America. The Farm Credit Administration also performs examinations for safety and soundness as well as compliance with applicable laws and regulations.

The Board of Directors has overall responsibility for our system of internal control and financial reporting. The Board of Directors and its Audit Committee consults regularly with us and meets periodically with the independent auditors and other auditors to review the scope and results of their work. The independent auditors have direct access to the Board of Directors, which is composed solely of directors who are not officers or employees of the Association.

The undersigned certify we have reviewed the Association's Annual Report, which has been prepared in accordance with all applicable statutory or regulatory requirements. The information contained herein is true, accurate, and complete to the best of our knowledge and belief.

Edward L. Reed
Chair of the Board
GreenStone Farm Credit Services, ACA

David B. Armstrong
Chief Executive Officer
GreenStone Farm Credit Services, ACA

Travis D. Jones
Executive Vice President – Chief Financial Officer
GreenStone Farm Credit Services, ACA

March 6, 2020

Report on Internal Control Over Financial Reporting

GREENSTONE FARM CREDIT SERVICES, ACA

The GreenStone Farm Credit Services, ACA (the Association) principal executives and principal financial officers, or persons performing similar functions, are responsible for establishing and maintaining adequate internal control over financial reporting for the Association's Consolidated Financial Statements. For purposes of this report, "internal control over financial reporting" is defined as a process designed by, or under the supervision of the Association's principal executives and principal financial officers, or persons performing similar functions, and effected by its Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting information and the preparation of the Consolidated Financial Statements for external purposes in accordance with accounting principles generally accepted in the United States of America and includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Association, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial information in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the Association, and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Association's assets that could have a material effect on its Consolidated Financial Statements.

The Association's management has completed an assessment of the effectiveness of internal control over financial reporting as of December 31, 2019. In making the assessment, management used the 2013 framework in Internal Control — Integrated Framework, promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.

Based on the assessment performed, the Association concluded that as of December 31, 2019, the internal control over financial reporting was effective based upon the COSO criteria. Additionally, based on this assessment, the Association determined that there were no material weaknesses in the internal control over financial reporting as of December 31, 2019.

David B. Armstrong
Chief Executive Officer
GreenStone Farm Credit Services, ACA

Travis D. Jones
Executive Vice President – Chief Financial Officer
GreenStone Farm Credit Services, ACA

March 6, 2020

Report of Audit Committee

GREENSTONE FARM CREDIT SERVICES, ACA

The Consolidated Financial Statements were prepared under the oversight of the Audit Committee. The Audit Committee is composed of a subset of the Board of Directors of GreenStone Farm Credit Services, ACA (the Association). The Audit Committee oversees the scope of the Association's internal audit program, the approval, and independence of PricewaterhouseCoopers LLP (PwC) as independent auditors, the adequacy of the Association's system of internal controls and procedures, and the adequacy of management's actions with respect to recommendations arising from those auditing activities. The Audit Committee's responsibilities are described more fully in the Internal Control Policy and the Audit Committee Charter.

Management is responsible for internal controls and the preparation of the Consolidated Financial Statements in accordance with accounting principles generally accepted in the United States of America. PwC is responsible for performing an independent audit of the Consolidated Financial Statements in accordance with auditing standards generally accepted in the United States of America and to issue their report based on their audit. The Audit Committee's responsibilities include monitoring and overseeing these processes.

In this context, the Audit Committee reviewed and discussed the audited Consolidated Financial Statements for the year ended December 31, 2019, with management. The Audit Committee also reviewed with PwC the matters required to be discussed by Statement on Auditing Standards AU-C 260, The Auditor's Communication with Those Charged with Governance, and both PwC and the internal auditors directly provided reports on any significant matters to the Audit Committee.

The Audit Committee had discussions with and received written disclosures from PwC confirming its independence. The Audit Committee also reviewed the non-audit services provided by PwC, if any, and concluded these services were not incompatible with maintaining PwC's independence. The Audit Committee discussed with management and PwC any other matters and received any assurances from them as the Audit Committee deemed appropriate.

Based on the foregoing review and discussions, and relying thereon, the Audit Committee recommended that the Board of Directors include the audited Consolidated Financial Statements in the Annual Report for the year ended December 31, 2019.

Eugene B. College
Chair of the Audit Committee
GreenStone Farm Credit Services, ACA

Thomas R. Durand, Peter C. Maxwell, and Dale L. Wagner
Members of the Audit Committee

March 6, 2020

pwc

Report of Independent Auditors

To the Board of Directors of GreenStone Farm Credit Services, ACA,

We have audited the accompanying Consolidated Financial Statements of GreenStone Farm Credit Services, ACA and its subsidiaries (the Association), which comprise the consolidated statements of condition as of December 31, 2019, 2018, and 2017, and the related consolidated statements of comprehensive income, changes in members' equity and cash flows for the years then ended.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the Consolidated Financial Statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of Consolidated Financial Statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the Consolidated Financial Statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Consolidated Financial Statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Consolidated Financial Statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the Consolidated Financial Statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Association's preparation and fair presentation of the Consolidated Financial Statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the Consolidated Financial Statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Consolidated Financial Statements referred to above present fairly, in all material respects, the financial position of GreenStone Farm Credit Services, ACA and its subsidiaries as of December 31, 2019, 2018, and 2017, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

March 6, 2020

PricewaterhouseCoopers LLP, 45 South Seventh Street, Suite 3400, Minneapolis, MN 55402
T: (612) 596 6000, www.pwc.com/us

Consolidated Statements of Condition

GREENSTONE FARM CREDIT SERVICES, ACA
(In thousands)

As of December 31	2019	2018	2017
ASSETS			
Loans	$9,398,125	$8,619,585	$8,212,256
Allowance for loan losses	95,454	84,064	72,640
Net loans	9,302,671	8,535,521	8,139,616
Investment in AgriBank, FCB	222,432	196,566	164,805
Investment securities	9,046	7,715	12,414
Accrued interest receivable	73,629	65,449	61,306
Premises and equipment, net	50,033	46,579	45,760
Acquired property	1,577	1,766	1,572
Deferred tax assets, net	4,419	4,809	2,547
Other assets	64,456	60,905	54,835
Total assets	$9,728,263	$8,919,310	$8,482,855
LIABILITIES			
Note payable to AgriBank, FCB	$7,748,606	$7,072,973	$6,783,097
Accrued interest payable	49,800	48,402	35,730
Patronage distribution payable	100,000	82,000	50,000
Other liabilities	51,145	43,858	45,382
Total liabilities	7,949,551	7,247,233	6,914,209
Contingencies and commitments (Note 12)			
MEMBERS' EQUITY			
Protected members' equity	1	1	1
Capital stock and participation certificates	23,019	22,400	22,141
Unallocated surplus	1,757,944	1,651,528	1,548,350
Accumulated other comprehensive loss	(2,252)	(1,852)	(1,846)
Total members' equity	1,778,712	1,672,077	1,568,646
Total liabilities and members' equity	$9,728,263	$8,919,310	$8,482,855

The accompanying notes are an integral part of these Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

GREENSTONE FARM CREDIT SERVICES, ACA
(In thousands)

For the year ended December 31	2019	2018	2017
Interest income	$439,256	$397,306	$343,425
Interest expense	204,609	175,297	134,038
NET INTEREST INCOME	234,647	222,009	209,387
Provision for credit losses	13,793	17,324	22,120
NET INTEREST INCOME AFTER PROVISION FOR CREDIT LOSSES	220,854	204,685	187,267
Non-interest income			
Patronage income	51,531	45,423	41,391
Financially related services income	10,584	9,812	10,263
Fee income	20,740	14,949	14,682
Allocated Insurance Reserve Accounts distribution	1,997	4,779	—
Acquired property income, net	413	692	276
Other non-interest income	1,158	1,917	1,843
TOTAL NON-INTEREST INCOME	86,423	77,572	68,455
Non-interest expense			
Salaries and employee benefits	67,452	63,445	59,382
Other operating expense	31,688	31,296	34,806
Other non-interest expense	—	1,207	887
TOTAL NON-INTEREST EXPENSE	99,140	95,948	95,075
INCOME BEFORE INCOME TAXES	208,137	186,309	160,647
Provision for income taxes	1,737	1,148	8,952
NET INCOME	$206,400	$185,161	$151,695
Other comprehensive loss			
Employee benefit plans activity	$(400)	$(6)	$—
Total other comprehensive loss	(400)	(6)	—
Comprehensive income	$206,000	$185,155	$151,695

The accompanying notes are an integral part of these Consolidated Financial Statements.

Consolidated Statements of Changes In Members' Equity

GREENSTONE FARM CREDIT SERVICES, ACA
(In thousands)

	Protected Members' Equity	Capital Stock and Participation Certificates	Unallocated Surplus	Accumulated Other Comprehensive Loss	Total Members' Equity
Balance as of December 31, 2016	$1	$21,693	$1,446,639	—	$1,468,333
Net income	—	—	151,695	—	151,695
Other comprehensive loss and other	—	—	—	(1,846)	(1,846)
Unallocated surplus designated for patronage distributions	—	—	(49,984)	—	(49,984)
Capital stock and participation certificates issued	—	2,136	—	—	2,136
Capital stock and participation certificates retired	—	(1,688)	—	—	(1,688)
Balance as of December 31, 2017	1	22,141	1,548,350	(1,846)	1,568,646
Net income	—	—	185,161	—	185,161
Other comprehensive loss	—	—	—	(6)	(6)
Unallocated surplus designated for patronage distributions	—	—	(81,983)	—	(81,983)
Capital stock and participation certificates issued	—	2,013	—	—	2,013
Capital stock and participation certificates retired	—	(1,754)	—	—	(1,754)
Balance as of December 31, 2018	1	22,400	1,651,528	(1,852)	1,672,077
Net income	—	—	206,400	—	206,400
Other comprehensive loss	—	—	—	(400)	(400)
Unallocated surplus designated for patronage distributions	—	—	(99,977)	—	(99,977)
Cumulative effect of change in accounting principle	—	—	(7)	—	(7)
Capital stock and participation certificates issued	—	2,250	—	—	2,250
Capital stock and participation certificates retired	—	(1,631)	—	—	(1,631)
Balance as of December 31, 2019	$1	$23,019	$1,757,944	$(2,252)	$1,778,712

The accompanying notes are an integral part of these Consolidated Financial Statements.

Consolidated Statements of Cash Flows

GREENSTONE FARM CREDIT SERVICES, ACA
(In thousands)

For the year ended December 31	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	$206,400	$185,161	$151,695
Depreciation on premises and equipment	3,426	3,240	2,980
Gain on sale of premises and equipment, net	—	(757)	(205)
Amortization of premiums on loans and investment securities, net	193	200	240
Provision for credit losses	13,793	17,324	22,120
Stock patronage received from Farm Credit Institutions	(19,255)	(56)	(52)
Write-down on acquired property	21	156	135
Loss (gain) on acquired property, net	232	704	(119)
Changes in operating assets and liabilities:			
Increase in accrued interest receivable	(23,617)	(16,502)	(18,115)
Increase in other assets	(2,905)	(8,477)	(6,686)
Increase in accrued interest payable	1,398	12,672	8,566
Increase (decrease) in other liabilities	6,887	(1,530)	(892)
Net cash provided by operating activities	186,573	192,135	159,667
CASH FLOWS FROM INVESTING ACTIVITIES			
Increase in loans, net	(765,972)	(400,449)	(396,371)
Purchases of investment in AgriBank, FCB, net	(6,675)	(31,761)	(4,869)
(Purchases) redemptions of investment in other Farm Credit Institutions, net	(199)	201	(653)
(Increase) decrease in investment securities, net	(1,421)	4,642	4,150
Decrease in acquired property, net	1,374	928	1,380
Purchases of premises and equipment, net	(6,880)	(5,264)	(6,795)
Net cash used in investing activities	(779,773)	(431,703)	(403,158)
CASH FLOWS FROM FINANCING ACTIVITIES			
Increase in note payable to AgriBank, FCB, net	675,633	289,876	276,772
Patronage distributions paid	(81,977)	(49,983)	(32,963)
Capital stock and participation certificates retired, net	(456)	(325)	(318)
Net cash provided by financing activities	593,200	239,568	243,491
Net change in cash	—	—	—
Cash at beginning of year	7	7	7
Cash at end of year	$7	$7	$7
SUPPLEMENTAL SCHEDULE OF NON-CASH ACTIVITIES			
Stock financed by loan activities	$2,174	$1,921	$2,067
Stock applied against loan principal	1,091	1,329	1,296
Stock applied against loan interest	8	8	5
Interest transferred to loans	15,429	12,351	10,858
Loans transferred to other property owned	1,450	2,196	1,598
Patronage distributions payable to members	100,000	82,000	50,000
Financed sales of other property owned	13	214	213
Financed sales of premises and equipment	—	1,962	—
Decrease in members' equity from employee benefits	(400)	(6)	(1,846)
SUPPLEMENTAL INFORMATION			
Interest paid	$203,211	$162,625	$125,472
Taxes paid, net	2,117	2,795	3,488

The accompanying notes are an integral part of these Consolidated Financial Statements.

Notes to Consolidated Financial Statements

GREENSTONE FARM CREDIT SERVICES, ACA

NOTE 1: ORGANIZATION AND OPERATIONS

FARM CREDIT SYSTEM AND DISTRICT

The Farm Credit System (System) is a nationwide system of cooperatively owned banks and associations established by Congress to meet the credit needs of American agriculture. As of January 1, 2020, the System consisted of three Farm Credit Banks, one Agricultural Credit Bank, and 68 customer-owned cooperative lending institutions (associations). AgriBank, FCB (AgriBank), a System Farm Credit Bank, and its District associations are collectively referred to as the AgriBank Farm Credit District (AgriBank District or the District). At January 1, 2020, the District consisted of 14 Agricultural Credit Associations (ACA) that each have wholly-owned Federal Land Credit Association (FLCA) and Production Credit Association (PCA) subsidiaries.

FLCAs are authorized to originate long-term real estate mortgage loans. PCAs are authorized to originate short-term and intermediate-term loans. ACAs are authorized to originate long-term real estate mortgage loans and short-term and intermediate-term loans either directly or through their subsidiaries. Associations are authorized to provide lease financing options for agricultural purposes and are also authorized to purchase and hold certain types of investments. AgriBank provides funding to all associations chartered within the District.

Associations are authorized to provide, either directly or in participation with other lenders, credit and related services to eligible borrowers. Eligible borrowers may include farmers, ranchers, producers or harvesters of aquatic products, rural residents, and farm-related service businesses. In addition, associations can participate with other lenders in loans to similar entities. Similar entities are parties that are not eligible for a loan from a System lending institution, but have operations that are functionally similar to the activities of eligible borrowers.

The Farm Credit Administration (FCA) is authorized by Congress to regulate the System banks and associations. We are examined by the FCA and certain association actions are subject to the prior approval of the FCA and/or AgriBank.

The Farm Credit Act established the Farm Credit System Insurance Corporation (FCSIC) to administer the Farm Credit Insurance Fund (Insurance Fund). The Insurance Fund is used to ensure the timely payment of principal and interest on Farm Credit Systemwide debt obligations, to ensure the retirement of protected borrower capital at par or stated value, and for other specified purposes.

At the discretion of the FCSIC, the Insurance Fund is also available to provide assistance to certain troubled System institutions and for the operating expenses of the FCSIC. Each System bank is required to pay premiums into the Insurance Fund until the assets in the Insurance Fund equal 2.0% of the aggregated insured obligations adjusted to reflect the reduced risk on loans or investments guaranteed by federal or state governments. This percentage of aggregate obligations can be changed by the FCSIC, at its sole discretion, to a percentage it determines to be actuarially sound. The basis for assessing premiums is debt outstanding with adjustments made for nonaccrual loans and impaired investment securities which are assessed a surcharge while guaranteed loans and investment securities are deductions from the premium base. AgriBank, in turn, assesses premiums to District associations each year based on similar factors.

ASSOCIATION

GreenStone Farm Credit Services, ACA (the Association) and its subsidiaries, GreenStone Farm Credit Services, FLCA and GreenStone Farm Credit Services, PCA (subsidiaries) are lending institutions of the System. We are a customer-owned cooperative providing credit and credit related services to, or for the benefit of, eligible members for qualified agricultural purposes in the state of Michigan and the counties of Brown, Door, Florence, Kewaunee, Manitowoc, Marinette, Menominee, Oconto, Outagamie, Shawano, and Waupaca in the state of Wisconsin.

We borrow from AgriBank and provide financing and related services to our members. Our ACA holds all the stock of the FLCA and PCA subsidiaries. The FLCA makes secured long-term agricultural real estate and rural home mortgage loans and provides lease financing options. The ACA and PCA make short-term and intermediate-term loans and provide lease financing options for agricultural production or operating purposes. At this time, the ACA holds all short-term and intermediate-term loans and the PCA has no assets.

We offer credit life, term life, credit disability, crop hail, and multi-peril crop insurance to borrowers and those eligible to borrow. We also offer farm records, fee appraisals, and income tax planning and preparation services to our members.

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

ACCOUNTING PRINCIPLES AND REPORTING POLICIES

Our accounting and reporting policies conform to accounting principles generally accepted in the United States of America (GAAP) and the prevailing practices within the financial services industry. Preparing financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the period. Actual results could differ from those estimates.

Certain amounts in prior years' financial statements have been reclassified to conform to the current year's presentation.

PRINCIPLES OF CONSOLIDATION

The Consolidated Financial Statements present the consolidated financial results of GreenStone Farm Credit Services, ACA and its subsidiaries. All material intercompany transactions and balances have been eliminated in consolidation.

SIGNIFICANT ACCOUNTING POLICIES

Loans: Loans are carried at their principal amount outstanding net of any unearned income, cumulative charge-offs, unamortized deferred fees and costs on originated loans, and unamortized premiums or discounts on purchased loans. Loan interest is accrued and credited to interest income based upon the daily principal amount outstanding. Material loan fees, net of related costs, are deferred and recognized over the life of the loan as an adjustment to net interest income. The net amount of loan fees and related origination costs are not material to the Consolidated Financial Statements taken as a whole.

Generally we place loans in nonaccrual status when principal or interest is delinquent for 90 days or more (unless the loan is well secured and in the process of collection) or circumstances indicate that full collection is not expected.

When a loan is placed in nonaccrual status, we reverse current year accrued interest to the extent principal plus accrued interest before the transfer exceeds the net realizable value of the collateral. Any unpaid interest accrued in a prior year is capitalized to the recorded investment of the loan, unless the net realizable value is less than the recorded investment in the loan, then it is charged-off against the allowance for loan losses. Any cash received on nonaccrual loans is applied to reduce the recorded investment in the loan, except in those cases where the collection of the recorded investment is fully expected and the loan does not have any unrecovered prior charge-offs. In these circumstances interest is credited to income when cash is received. Loans are charged-off at the time they are determined to be uncollectible. Nonaccrual loans may be returned to accrual status when principal and interest are current, prior charge-offs have been recovered, the ability of the borrower to fulfill the contractual repayment terms is fully expected, the borrower has demonstrated payment performance, and the loan is not classified as doubtful or loss.

In situations where, for economic or legal reasons related to the borrower's financial difficulties, we grant a concession for other than an insignificant period of time to the borrower that we would not otherwise consider, the related loan is classified as a troubled debt restructuring, also known as a formally restructured loan for regulatory purposes. A concession is generally granted in order to minimize economic loss and avoid foreclosure. Concessions vary by program and borrower and may include interest rate reductions, term extensions, payment deferrals, or an acceptance of additional collateral in lieu of payments. In limited circumstances, principal may be forgiven. Loans classified as troubled debt restructurings are considered risk loans (as defined below).

Loans that are sold as participations are transferred as entire financial assets, groups of entire financial assets, or participating interests in the loans. The transfers of such assets or participating interests are structured such that control over the transferred assets, or participating interests have been surrendered and that all of the conditions have been met to be accounted for as a sale.

Allowance for Loan Losses: The allowance for loan losses is our best estimate of the amount of losses on loans inherent in our portfolio as of the date of the financial statements. We determine the appropriate level of allowance for loan losses based on periodic evaluation of factors such as loan loss history, estimated probability of default, estimated loss severity, portfolio quality, and current economic and environmental conditions.

Loans in our portfolio that are considered impaired are analyzed individually to establish a specific allowance. A loan is impaired when it is probable that all amounts due will not be collected according to the contractual terms of the loan agreement. We generally measure impairment based on the net realizable value of the collateral. Risk loans include nonaccrual loans, accruing restructured loans, and accruing loans 90 days or more past due. All risk loans are considered to be impaired loans.

We record a specific allowance to reduce the carrying amount of the risk loan by the amount the recorded investment exceeds the net realizable value of collateral. When we deem a loan to be uncollectible, we charge the loan principal and prior year(s) accrued interest against the allowance for loan losses. Subsequent recoveries, if any, are added to the allowance for loan losses.

An allowance is recorded for probable and estimable credit losses as of the financial statement date for loans that are not individually assessed as impaired. We use a two-dimensional loan risk rating model that incorporates a 14-point rating scale to identify and track the probability of borrower default and a separate 6-point scale addressing the loss severity. The combination of estimated default probability and loss severity is the primary basis for recognition and measurement of loan collectability of these pools of loans. These estimated losses may be adjusted for relevant current environmental factors.

Changes in the allowance for loan losses consist of provision activity, recorded in "Provision for credit losses" in the Consolidated Statements of Comprehensive Income, and recoveries, and charge-offs.

Investment in AgriBank: Our stock investment in AgriBank is on a cost plus allocated equities basis.

Investment Securities: We are authorized to purchase and hold certain types of investments. If we have the positive intent and ability to hold these investments to maturity, they have been classified as held-to-maturity and are carried at cost adjusted for the amortization of premiums and accretion of discounts. If an investment is determined to be other-than-temporarily impaired, the carrying value of the security is written down to fair value. The impairment loss is separated into credit related and non-credit related components. The credit related component is expensed through Net Income in the Consolidated Statements of Comprehensive Income in the period of impairment. The non-credit related component is recognized in other comprehensive income. Purchased premiums and discounts are amortized or accreted using the interest method, over the terms of the respective securities. Realized gains and losses are determined using specific identification method and are recognized in current operations.

Acquired Property: Acquired property, consisting of real and personal property acquired through foreclosure or deed in lieu of foreclosure, is recorded at the fair value less estimated selling costs upon acquisition. Any initial reduction in the carrying amount of a loan to the fair value of the collateral received is charged to the allowance for loan losses. Revised estimates to the fair value less costs to sell are reported as adjustments to the carrying amount of the asset, provided that such adjusted value is not in excess of the carrying amount at acquisition. Related income, expenses, and gains or losses from operations and carrying value adjustments are included in "Acquired property income, net" in the Consolidated Statements of Comprehensive Income.

Premises and Equipment: The carrying amount of premises and equipment is at cost, less accumulated depreciation. Calculation of depreciation is generally on the straight line method over the estimated useful lives of the assets. Gains or losses on disposition are included in "Other non-interest income" or "Other non-interest expense" in the Consolidated Statements of Comprehensive Income. Depreciation, maintenance, and repairs are included in "Other operating expenses" in the Consolidated Statements of Comprehensive Income, and improvements are capitalized.

Post-Employment Benefit Plans: The District has various post-employment benefit plans in which our employees participate. Expenses related to these plans except for the AgriBank District Pension Restoration Plan, are included in "Salaries and employee benefits" in the Consolidated Statements of Comprehensive Income.

The defined contribution plan allows eligible employees to save for their retirement either pre-tax, post-tax, or both, with an employer match on a percentage of the employee's contributions. We provide benefits under this plan for all employees in the form of a fixed percentage of salary contribution in addition to the employer match. Employer contributions are expensed when incurred.

Certain employees also participate in the Nonqualified Deferred Compensation Plan. Eligible participants must meet one of the following criteria: certain salary thresholds as determined by the Internal Revenue Service (IRS), are either a Chief Executive Officer or President of a participating employer, or have previously elected pre-tax deferrals in 2006 under predecessor nonqualified deferred compensation plans. Under this plan the employee may defer a portion of his/her salary, bonus, and other compensation. Additionally, the plan provides for supplemental employer matching contributions related to any compensation deferred by the employee that would have been eligible for a matching contribution under the retirement savings plan if it were not for certain IRS limitations.

Certain employees participate in the AgriBank District Retirement Plan. The plan is comprised of two benefit formulas. At their option, employees hired prior to October 1, 2001, are on the cash balance formula or on the final average pay formula. Benefits eligible employees hired between October 1, 2001, and December 31, 2006, are on the cash balance formula. Effective January 1, 2007, the AgriBank District Retirement Plan was closed to new employees. The AgriBank District Retirement Plan utilizes the "Projected Unit Credit" actuarial method for financial reporting and funding purposes.

Certain employees also participate in the AgriBank District Pension Restoration Plan. This plan restores retirement benefits to certain highly compensated eligible employees that would have been provided under the qualified plan if such benefits were not above certain Internal Revenue Code limits. Beginning in 2017, the pension liability attributable to the Pension Restoration Plan at the Association and the related accumulated other comprehensive loss are included in the Consolidated Statements of Condition. The components of net periodic cost other than the service cost component, are included in the line item "Other operating expenses" on the Consolidated Statements of Comprehensive Income. Service costs are included in the line item "Salaries and employee benefits" on the Consolidated Statements of Comprehensive Income.

We also provide certain health insurance benefits to eligible retired employees according to the terms of those benefit plans. The anticipated cost of these benefits is accrued during the employees' active service period.

Income Taxes: The ACA and PCA accrue federal and state income taxes. Deferred tax assets and liabilities are recognized for future tax consequences of temporary differences between the carrying amounts and tax basis of assets and liabilities. Deferred tax assets are recorded if the deferred tax asset is more likely than not to be realized. If the realization test cannot be met, the deferred tax asset is reduced by a valuation allowance. The expected future tax consequences of uncertain income tax positions are accrued.

The FLCA is exempt from federal and other taxes to the extent provided in the Farm Credit Act.

Patronage Program: We accrue patronage distributions according to a prescribed formula approved by the Board of Directors. Generally, we pay the accrued patronage during the first quarter after year end.

Off-Balance Sheet Credit Exposures: Commitments to extend credit are agreements to lend to customers, generally having fixed expiration dates or other termination clauses. Standby letters of credit are agreements to pay a beneficiary if there is a default on a contractual arrangement. Any reserve for unfunded lending commitments is based on management's best estimate of losses inherent in these instruments, but the commitments have not yet disbursed. Factors such as likelihood of disbursal and likelihood of losses given disbursement are utilized in determining a reserve, if needed. Based on our assessment, any reserve is recorded in "Other liabilities" in the Consolidated Statements of Condition and a corresponding loss is recorded in "Provision for credit losses" in the Consolidated Statements of Comprehensive Income.

Cash: For purposes of reporting cash flow, cash includes cash on hand.

Fair Value Measurement: The accounting guidance describes three levels of inputs that may be used to measure fair value.

Level 1 — Unadjusted quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

Level 2 — Observable inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly. Level 2 inputs include:

- Quoted prices for similar assets or liabilities in active markets
- Quoted prices for identical or similar assets or liabilities in markets that are not active so that they are traded less frequently than exchange-traded instruments, quoted prices that are not current, or principal market information that is not released publicly
- Inputs that are observable such as interest rates and yield curves, prepayment speeds, credit risks, and default rates
- Inputs derived principally from or corroborated by observable market data by correlation or other means

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. These unobservable inputs reflect the reporting entity's own judgments about assumptions that market participants would use in pricing the asset or liability. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

RECENTLY ISSUED OR ADOPTED ACCOUNTING PRONOUNCEMENTS

We have assessed the potential impact of accounting standards that have been issued by the Financial Accounting Standards Board (FASB) and have determined the following standards to be applicable to our business. While we are a nonpublic entity, our financial results are closely related to the performance of the combined Farm Credit System. Therefore, we typically adopt accounting pronouncements in alignment with other System institutions.

Standard and effective date

In February 2016, the FASB issued Accounting Standards Updated (ASU) 2016-02 "Leases." In July 2018, the FASB issued ASU 2018-11 "Leases (Topic 842): Targeted Improvements." The guidance was effective for public business entities in its first quarter of 2019 and early adoption was permitted.

Description

The guidance modifies the recognition and accounting for lessees and lessors and requires expanded disclosures regarding assumptions used to recognize revenue and expenses related to leases. Upon adoption, a liability for lease obligations and a corresponding right-of-use asset is recognized on the Consolidated Statements of Condition for all lease arrangements spanning more than 12 months. The guidance includes an optional transition method where an entity is permitted to apply the guidance as of the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings.

Adoption status and financial statement impact

We adopted this guidance on January 1, 2019, using the transition guidance allowing for the application of the transition requirements on the effective date with the effects initially recognized as a cumulative effect adjustment to the opening balance of retained earnings. In addition, we elected the package of practical expedients permitted under the transition guidance, which among other things, allowed us to carry forward the historical lease classification. We also elected the hindsight practical expedient to determine the lease term for existing leases. The adoption of this guidance did not have a material impact on our financial condition, results of operations, and financial statement disclosures, and had no impact on cash flows. The adoption of this guidance resulted in recording of a cumulative effect adjustment to unallocated surplus of $7 thousand.

Standard and effective date

In June 2016, the FASB issued ASU 2016-13 "Financial Instruments - Credit Losses." The guidance was originally effective for non-U.S. Securities Exchange Commission filers for our first quarter of 2021. In November 2019, the FASB issued ASU 2019-10 which amends the mandatory effective date for this guidance for certain institutions. We have determined we qualify for the deferral of the mandatory effective date. As a result of the change, the standard is effective for our first quarter of 2023 and early adoption is permitted.

Description

The guidance replaces the current incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. Credit losses relating to available-for-sale securities would also be recorded through an allowance for credit losses.

Adoption status and financial statement impact

We are evaluating the deferral and have not yet determined if we will early adopt the standard. We have reviewed the accounting standard, selected and substantially completed development and testing of our system, and are in the process of drafting disclosures. Significant implementation matters yet to be addressed include drafting of accounting policies and designing processes and controls. We are currently unable to estimate the impact on our financial statements.

NOTE 3: LOANS AND ALLOWANCE FOR LOAN LOSSES

Loans by Type
(dollars in thousands)

As of December 31	2019 Amount	2019 Percentage	2018 Amount	2018 Percentage	2017 Amount	2017 Percentage
Real estate mortgage	$5,618,576	59.8%	$5,265,017	61.1%	$4,912,667	59.8%
Production and intermediate-term	1,989,227	21.2	2,035,886	23.6	2,099,435	25.6
Agribusiness	1,280,579	13.6	907,425	10.5	852,151	10.4
Other	509,743	5.4	411,257	4.8	348,003	4.2
Total	$9,398,125	100.0%	$8,619,585	100.0%	$8,212,256	100.0%

The other category is primarily comprised of rural residential real estate and rural infrastructure related loans.

PORTFOLIO CONCENTRATIONS

Concentrations exist when there are amounts loaned to multiple borrowers engaged in similar activities, which could cause them to be similarly impacted by economic conditions. We lend primarily within agricultural industries.

As of December 31, 2019, volume plus commitments to our ten largest borrowers totaled an amount equal to 4.8% of total loans and commitments.

Total loans plus any unfunded commitments represent the maximum potential credit risk. However, the vast majority of our lending activities are collateralized. Accordingly, the credit risk associated with lending activities is less than the recorded loan principal. The amount of collateral obtained, if deemed necessary upon extension of credit, is based on management's credit evaluation of the borrower. Collateral held varies, but typically includes farmland and income-producing property, such as crops and livestock. Long-term real estate loans are secured by the first liens on the underlying real property.

PARTICIPATIONS

We may purchase or sell participation interests with other parties in order to diversify risk, manage loan volume, or comply with the limitations of the FCA Regulations or General Financing Agreement (GFA) with AgriBank.

Participations Purchased and Sold
(in thousands)

	AgriBank Participations		Other Farm Credit Institutions Participations		Non-Farm Credit Institutions Participations		Total Participations	
As of December 31, 2019	Purchased	Sold	Purchased	Sold	Purchased	Sold	Purchased	Sold
Real estate mortgage	$ —	$(149,011)	$297,809	$(307,583)	$368,035	$ —	$665,844	$ (456,594)
Production and intermediate-term	—	(195,715)	285,673	(129,076)	6,301	(1,791)	291,974	(326,582)
Agribusiness	—	(14,403)	443,806	(25,632)	48,793	—	492,599	(40,035)
Other	—	(5,133)	281,338	—	—	—	281,338	(5,133)
Total	$ —	$(364,262)	$1,308,626	$(462,291)	$423,129	$(1,791)	$1,731,755	$(828,344)
As of December 31, 2018								
Real estate mortgage	$ —	$(190,387)	$240,934	$(169,947)	$197,044	$ —	$437,978	$(360,334)
Production and intermediate-term	—	(210,794)	236,109	(102,656)	7,954	—	244,063	(313,450)
Agribusiness	—	(10,139)	418,283	(24,049)	43,184	—	461,467	(34,188)
Other	—	(5,806)	202,549	—	—	—	202,549	(5,806)
Total	$ —	$(417,126)	$1,097,875	$(296,652)	$248,182	$ —	$1,346,057	$(713,778)
As of December 31, 2017								
Real estate mortgage	$ —	$(225,820)	$198,137	$(135,586)	$142,313	$ —	$340,450	$(361,406)
Production and intermediate-term	—	(47,841)	216,379	(88,265)	8,772	—	225,151	(136,106)
Agribusiness	—	(7,860)	440,519	(19,794)	7,143	—	447,662	(27,654)
Other	—	(6,942)	142,382	—	—	—	142,382	(6,942)
Total	$ —	$(288,463)	$997,417	$(243,645)	$158,228	$ —	$1,155,645	$ (532,108)

Information in the preceding chart excludes loans entered into under our mission related investment authority.

CREDIT QUALITY AND DELINQUENCY

We utilize the FCA Uniform Classification System to categorize loans into five credit quality categories. The categories are:

- Acceptable – loans are non-criticized loans representing the highest quality. They are expected to be fully collectible. This category is further differentiated into various probabilities of default.
- Other assets especially mentioned (Special Mention) – loans are currently collectible but exhibit some potential weakness. These loans involve increased credit risk, but not to the point of justifying a substandard classification.
- Substandard – loans exhibit some serious weakness in repayment capacity, equity, and/or collateral pledged on the loan.
- Doubtful – loans exhibit similar weaknesses as substandard loans. Doubtful loans have additional weaknesses in existing factors, conditions, and values that make collection in full highly questionable.
- Loss – loans are considered uncollectible.

We had no loans categorized as loss at December 31, 2019, 2018, or 2017.

Credit Quality of Loans
(dollars in thousands)

	Acceptable		Special Mention		Substandard/ Doubtful		Total
As of December 31, 2019	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount
Real estate mortgage	$5,158,474	91.0%	$303,981	5.4%	$202,329	3.6%	$5,664,784
Production and intermediate-term	1,752,098	87.1	160,033	8.0	99,103	4.9	2,011,234
Agribusiness	1,241,647	96.6	16,344	1.3	26,669	2.1	1,284,660
Other	503,588	98.6	3,320	0.7	3,750	0.7	510,658
Total	$8,655,807	91.4%	$483,678	5.1%	$331,851	3.5%	$9,471,336
As of December 31, 2018							
Real estate mortgage	$4,886,814	92.1%	$237,390	4.5%	$181,486	3.4%	$5,305,690
Production and intermediate-term	1,840,192	89.5	111,926	5.4	104,239	5.1	2,056,357
Agribusiness	880,559	96.7	17,041	1.9	13,030	1.4	910,630
Other	400,293	97.1	7,321	1.8	4,377	1.1	411,991
Total	$8,007,858	92.2%	$373,678	4.3%	$303,132	3.5%	$8,684,668
As of December 31, 2017							
Real estate mortgage	$4,647,432	93.9%	$131,848	2.7%	$ 170,166	3.4%	$4,949,446
Production and intermediate-term	1,968,773	92.9	72,474	3.4	78,988	3.7	2,120,235
Agribusiness	831,126	97.2	4,939	0.6	18,613	2.2	854,678
Other	340,314	97.5	3,035	0.9	5,490	1.6	348,839
Total	$7,787,645	94.1%	$212,296	2.6%	$273,257	3.3%	$8,273,198

Note: Accruing loans include accrued interest receivable.

Aging Analysis of Loans
(in thousands)

As of December 31, 2019	30-89 Days Past Due	90 Days or More Past Due	Total Past Due	Not Past Due or Less than 30 Days Past Due	Total	90 Days Past Due and Accruing
Real estate mortgage	$12,770	$22,081	$34,851	$5,629,933	$5,664,784	$—
Production and intermediate-term	5,348	9,262	14,610	1,996,624	2,011,234	—
Agribusiness	90	107	197	1,284,463	1,284,660	—
Other	2,269	50	2,319	508,339	510,658	—
Total	$20,477	$31,500	$51,977	$9,419,359	$9,471,336	$—
As of December 31, 2018						
Real estate mortgage	$15,678	$2,992	$18,670	$5,287,020	$5,305,690	$79
Production and intermediate-term	4,381	2,351	6,732	2,049,625	2,056,357	—
Agribusiness	—	332	332	910,298	910,630	—
Other	2,649	588	3,237	408,754	411,991	—
Total	$22,708	$6,263	$28,971	$8,655,697	$8,684,668	$79
As of December 31, 2017						
Real estate mortgage	$10,360	$2,483	$12,843	$4,936,603	$4,949,446	$—
Production and intermediate-term	5,030	1,797	6,827	2,113,408	2,120,235	262
Agribusiness	106	233	339	854,339	854,678	—
Other	2,665	808	3,473	345,366	348,839	—
Total	$18,161	$5,321	$23,482	$8,249,716	$8,273,198	$262

Note: Accruing loans include accrued interest receivable.

RISK LOANS

Risk loans are loans for which it is probable that all principal and interest will not be collected according to the contractual terms. Interest income recognized and cash payments received on nonaccrual risk loans are applied as described in Note 2.

Risk Loan Information
(in thousands)

As of December 31	2019	2018	2017
Nonaccrual loans:			
Current as to principal and interest	$39,017	$89,265	$38,447
Past due	33,944	8,619	7,557
Total nonaccrual loans	72,961	97,884	46,004
Accruing restructured loans	3,364	3,331	3,566
Accruing loans 90 days or more past due	—	79	262
Total risk loans	$76,325	$101,294	$49,832
Volume with specific allowance	$48,942	$76,625	$23,088
Volume without specific allowance	27,383	24,669	26,744
Total risk loans	$76,325	$101,294	$49,832
Total specific allowance	$20,584	$25,248	$7,704
For the year ended December 31	**2019**	**2018**	**2017**
Income on accrual risk loans	$203	$281	$220
Income on nonaccrual loans	2,721	1,575	4,110
Total income on risk loans	$2,924	$1,856	$4,330
Average risk loans	$90,053	$71,162	$50,813

Note: Accruing loans include accrued interest receivable.

Nonaccrual Loans by Loan Type
(in thousands)

As of December 31	2019	2018	2017
Real estate mortgage	$41,710	$52,567	$22,413
Production and intermediate-term	19,971	31,608	19,972
Agribusiness	9,847	11,678	769
Other	1,433	2,031	2,850
Total	$72,961	$97,884	$46,004

Additional Impaired Loan Information by Loan Type
(in thousands)

	As of December 31, 2019			For the year ended December 31, 2019	
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Impaired Loans	Interest Income Recognized
Impaired loans with a related allowance for loan losses:					
Real estate mortgage	$21,950	$23,197	$8,134	$25,524	$ —
Production and intermediate-term	16,584	19,338	7,165	20,650	—
Agribusiness	9,740	11,098	5,135	10,655	—
Other	668	904	150	810	—
Total	$48,942	$54,537	$20,584	$57,639	$ —
Impaired loans with no related allowance for loan losses:					
Real estate mortgage	$22,488	$26,529	$ —	$26,150	$2,047
Production and intermediate-term	3,792	12,508	—	4,722	738
Agribusiness	107	209	—	298	—
Other	996	3,046	—	1,244	139
Total	$27,383	$42,292	$ —	$32,414	$2,924
Total impaired loans:					
Real estate mortgage	$44,438	$49,726	$8,134	$51,674	$2,047
Production and intermediate-term	20,376	31,846	7,165	25,372	738
Agribusiness	9,847	11,307	5,135	10,953	—
Other	1,664	3,950	150	2,054	139
Total	$76,325	$96,829	$20,584	$90,053	$2,924

	As of December 31, 2018			For the year ended December 31, 2018	
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Impaired Loans	Interest Income Recognized
Impaired loans with a related allowance for loan losses:					
Real estate mortgage	$35,543	$36,804	$10,529	$22,737	$ —
Production and intermediate-term	28,467	31,631	8,925	20,794	—
Agribusiness	11,678	12,326	5,519	9,684	—
Other	937	1,250	275	1,107	—
Total	$76,625	$82,011	$25,248	$54,322	$ —
Impaired loans with no related allowance for loan losses:					
Real estate mortgage	$19,753	$23,520	$ —	$12,636	$1,167
Production and intermediate-term	3,560	9,935	—	2,600	557
Agribusiness	—	—	—	—	—
Other	1,356	3,793	—	1,604	132
Total	$24,669	$37,248	$ —	$16,840	$1,856
Total impaired loans:					
Real estate mortgage	$55,296	$60,324	$10,529	$35,373	$1,167
Production and intermediate-term	32,027	41,566	8,925	23,394	557
Agribusiness	11,678	12,326	5,519	9,684	—
Other	2,293	5,043	275	2,711	132
Total	$101,294	$119,259	$25,248	$71,162	$1,856

	As of December 31, 2017			For the year ended December 31, 2017	
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Impaired Loans	Interest Income Recognized
Impaired loans with a related allowance for loan losses:					
Real estate mortgage	$7,744	$8,512	$1,765	$7,455	$ —
Production and intermediate-term	13,650	16,786	5,226	15,430	—
Agribusiness	—	—	—	—	—
Other	1,694	2,027	713	1,674	—
Total	$23,088	$27,325	$7,704	$24,559	$ —
Impaired loans with no related allowance for loan losses:					
Real estate mortgage	$17,491	$21,345	$ —	$16,835	$2,073
Production and intermediate-term	7,063	16,781	—	7,987	1,847
Agribusiness	769	739	—	28	159
Other	1,421	3,886	—	1,404	251
Total	$26,744	$42,751	$ —	$26,254	$4,330
Total impaired loans:					
Real estate mortgage	$25,235	$29,857	$1,765	$24,290	$2,073
Production and intermediate-term	20,713	33,567	5,226	23,417	1,847
Agribusiness	769	739	—	28	159
Other	3,115	5,913	713	3,078	251
Total	$49,832	$70,076	$7,704	$50,813	$4,330

The recorded investment in the loan is the unpaid principal amount of the receivable increased or decreased by applicable accrued interest and unamortized premium, discount, finance charges, and acquisition costs and may also reflect a previous direct charge-off of the investment.

Unpaid principal balance represents the contractual principal balance of the loan.

We had $5.4 million of commitments to lend additional money to borrowers whose loans were classified as risk loans at December 31, 2019.

TROUBLED DEBT RESTRUCTURINGS (TDRS)

Included within our loans are TDRs. These loans have been modified by granting a concession in order to maximize the collection of amounts due when a borrower is experiencing financial difficulties. All risk loans, including TDRs, are analyzed within our allowance for loan losses.

TDR Activity
(in thousands)

For the year ended December 31	2019		2018		2017	
	Pre-modification	Post-modification	Pre-modification	Post-modification	Pre-modification	Post-modification
Real estate mortgage	$4,245	$4,245	$2,044	$1,877	$831	$827
Production and intermediate-term	3,557	3,557	1,423	1,424	703	677
Agribusiness	—	—	11,871	11,871	—	—
Other	13	15	73	73	—	—
Total	$7,815	$7,817	$15,411	$15,245	$1,534	$1,504

Pre-modification represents the outstanding recorded investment of the loan just prior to restructuring and post-modification represents the outstanding recorded investment of the loan immediately following the restructuring. The recorded investment in the loan is the unpaid principal amount of the receivable increased or decreased by applicable accrued interest and unamortized premium, discount, finance charges, and acquisition costs and may also reflect a previous direct charge-off of the investment.

The primary types of modification included deferral of principal and extension of maturity.

There were no TDRs that defaulted during the year ended December 31, 2019 in which the modification was within twelve months of the respective reporting period.

TDRs that Occurred Within the Previous 12 Months that Subsequently Defaulted
(in thousands)

	2019	2018	2017
Real estate mortgage	$—	$—	$47
Production and intermediate-term	—	14	74
Agribusiness	—	10,722	—
Total	$—	$ 10,736	$121

TDRs Outstanding
(in thousands):

As of December 31	2019	2018	2017
Accrual status:			
Real estate mortgage	$2,726	$2,650	$2,821
Production and intermediate-term	405	419	480
Agribusiness	—	—	—
Other	233	262	265
Total TDRs in accrual status	$3,364	$3,331	$3,566
Nonaccrual status:			
Real estate mortgage	$4,369	$2,289	$1,629
Production and intermediate-term	3,349	1,337	797
Agribusiness	8,928	10,535	—
Other	199	184	141
Total TDRs in nonaccrual status	$16,845	$14,345	$2,567
Total TDRs:			
Real estate mortgage	$7,095	$4,939	$4,450
Production and intermediate-term	3,754	1,756	1,277
Agribusiness	8,928	10,535	—
Other	432	446	406
Total TDRs	$20,209	$17,676	$6,133

Additional commitments to lend to borrowers whose loans have been modified in a TDR were $3.5 million at December 31, 2019.

ALLOWANCE FOR LOAN LOSSES

Changes in Allowance for Loan Losses
(in thousands)

For the year ended December 31	2019	2018	2017
Balance at beginning of year	$84,064	$72,640	$46,382
Provision for loan losses	12,514	13,686	24,549
Loan recoveries	434	1,397	4,656
Loan charge-offs	(1,558)	(3,659)	(2,947)
Balance at end of year	$95,454	$84,064	$72,640

The "Provision for credit losses" in the Consolidated Statements of Comprehensive Income includes a provision for loan losses as presented in the previous chart, as well as a provision for (reversal of) credit losses on unfunded commitments. The accrued credit losses on unfunded commitments are recorded in "Other liabilities" in the Consolidated Statements of Condition.

Credit Loss Information on Unfunded Commitments
(in thousands)

For the year ended December 31	2019	2018	2017
Provision for (reversal of) credit losses	$1,279	$3,638	$(2,429)

As of December 31	2019	2018	2017
Accrued credit losses	$5,448	$4,169	$531

Changes in Allowance for Loan Losses and Year End Recorded Investments by Loan Type
(in thousands)

	Real Estate Mortgage	Production and Intermediate-Term	Agribusiness	Other	Total
Allowance for loan losses:					
Balance as of December 31, 2018	$49,190	$25,676	$8,149	$1,049	$84,064
Provision for (reversal of) loan losses	3,676	2,067	6,913	(142)	12,514
Loan recoveries	212	90	—	132	434
Loan charge-offs	(334)	(1,131)	(35)	(58)	(1,558)
Balance as of December 31, 2019	$52,744	$26,702	$15,027	$981	$95,454
Ending balance: individually evaluated for impairment	$8,134	$7,165	$5,135	$150	$20,584
Ending balance: collectively evaluated for impairment	$44,610	$19,537	$9,892	$831	$74,870
Recorded investments in loans outstanding:					
Ending balance as of December 31, 2019	$5,664,784	$2,011,234	$1,284,660	$510,658	$9,471,336
Ending balance: individually evaluated for impairment	$44,438	$20,376	$9,847	$1,664	$76,325
Ending balance: collectively evaluated for impairment	$5,620,346	$1,990,858	$1,274,813	$508,994	$9,395,011

	Real Estate Mortgage	Production and Intermediate-Term	Agribusiness	Other	Total
Allowance for loan losses:					
Balance as of December 31, 2017	$39,347	$23,460	$8,378	$1,455	$72,640
Provision for (reversal of) loan losses	10,346	4,295	(693)	(262)	13,686
Loan recoveries	183	608	467	139	1,397
Loan charge-offs	(686)	(2,687)	(3)	(283)	(3,659)
Balance as of December 31, 2018	$49,190	$25,676	$8,149	$1,049	$84,064
Ending balance: individually evaluated for impairment	$10,529	$8,925	$5,519	$275	$25,248
Ending balance: collectively evaluated for impairment	$38,661	$16,751	$2,630	$774	$58,816
Recorded investments in loans outstanding:					
Ending balance as of December 31, 2018	$5,305,690	$2,056,357	$910,630	$411,991	$8,684,668
Ending balance: individually evaluated for impairment	$55,296	$32,027	$11,678	$2,293	$101,294
Ending balance: collectively evaluated for impairment	$5,250,394	$2,024,330	$898,952	$409,698	$8,583,374

	Real Estate Mortgage	Production and Intermediate-Term	Agribusiness	Other	Total
Allowance for loan losses:					
Balance as of December 31, 2016	$21,210	$17,927	$6,033	$1,212	$46,382
Provision for (reversal of) loan losses	18,074	7,319	(1,157)	313	24,549
Loan recoveries	280	677	3,502	197	4,656
Loan charge-offs	(217)	(2,463)	—	(267)	(2,947)
Balance as of December 31, 2017	$39,347	$23,460	$8,378	$1,455	$72,640
Ending balance: individually evaluated for impairment	$1,765	$5,226	$—	$713	$7,704
Ending balance: collectively evaluated for impairment	$37,582	$18,234	$8,378	$742	$64,936
Recorded investments in loans outstanding:					
Ending balance as of December 31, 2017	$4,949,446	$2,120,235	$854,678	$348,839	$8,273,198
Ending balance: individually evaluated for impairment	$25,235	$20,713	$769	$3,115	$49,832
Ending balance: collectively evaluated for impairment	$4,924,211	$2,099,522	$853,909	$345,724	$8,223,366

The recorded investment in the loan is the unpaid principal amount increased or decreased by applicable accrued interest and unamortized premium, discount, finance charges, and acquisition costs and may also reflect a previous direct charge-off of the investment.

NOTE 4: INVESTMENT IN AGRIBANK

During 2019, we were required by AgriBank to maintain an investment equal to 2.25% of the average quarterly balance of our note payable, with an additional amount required on association growth in excess of a targeted growth rate, if the District is also growing above a targeted growth rate. Effective January 1, 2020, the required rate was increased to 2.50% with similar growth rate requirements as 2019.

We are also required to hold AgriBank stock related to our participation in pool programs. The required investment amount varies by pool program and is generally a percentage of the loan balance in the pool.

AgriBank's capital plan provides for annual retirement of AgriBank stock and optimizes capital at the Bank by distributing all available Bank earnings in the form of patronage, either in cash or stock. The plan is designed to maintain capital adequacy such that sufficient earnings will be retained in the form of allocated retained earnings and allocated stock to meet the leverage ratio target and other regulatory or policy constraints prior to any cash patronage distributions.

The balance of our investment in AgriBank was $222.4 million, $196.6 million, and $164.8 million at December 31, 2019, 2018, and 2017, respectively.

NOTE 5: INVESTMENT SECURITIES

We held investment securities of $9.0 million, $7.7 million, and $12.4 million at December 31, 2019, 2018, and 2017, respectively. Our investment securities consisted of securities backed by pools of loans guaranteed by the Small Business Administration (SBA).

The investment securities have been classified as held-to-maturity. The investment portfolio is evaluated for other-than-temporary impairment. For the years ended December 31, 2019, 2018, and 2017, we have not recognized any impairment on our investment portfolio.

Additional Investment Securities Information
(dollars in thousands)

As of December 31	2019	2018	2017
Amortized cost	$9,046	$7,715	$12,414
Unrealized gains	82	278	531
Unrealized losses	(19)	—	—
Fair value	$9,109	$7,993	$12,945
Weighted average yield	5.1%	4.9%	3.5%

Investment income is recorded in "Interest income" in the Consolidated Statements of Comprehensive Income and totaled $569 thousand, $499 thousand, and $526 thousand in 2019, 2018, and 2017, respectively.

NOTE 6: PREMISES AND EQUIPMENT, NET

Premises and Equipment
(in thousands)

As of December 31	2019	2018	2017
Land, buildings, and improvements	$61,007	$55,745	$54,002
Furniture and equipment	22,180	20,800	21,890
Subtotal	83,187	76,545	75,892
Less: accumulated depreciation	33,154	29,966	30,132
Premises and equipment, net	$50,033	$46,579	$45,760

NOTE 7: NOTE PAYABLE TO AGRIBANK

Our note payable to AgriBank represents borrowings, in the form of a line of credit, to fund our loan portfolio. The line of credit is governed by a GFA and substantially all of our assets serve as collateral.

Note Payable Information
(dollars in thousands)

As of December 31	2019	2018	2017
Line of credit	$9,250,000	$8,000,000	$8,000,000
Outstanding principal under the line of credit	7,748,606	7,072,973	6,783,097
Interest rate	2.6%	2.7%	2.2%

Our note payable is scheduled to mature on December 31, 2021. The note payable will be renegotiated no later than the maturity date.

The GFA provides for limitations on our ability to borrow funds based on specified factors or formulas relating primarily to outstanding balances, credit quality, and financial condition. Additionally, we have requirements to maintain an effective program of internal controls over financial reporting. At December 31, 2019, and throughout the year, we were not declared in default under any GFA covenants or provisions.

NOTE 8: MEMBERS' EQUITY

CAPITALIZATION REQUIREMENTS

In accordance with the Farm Credit Act, each borrower is required to invest in us as a condition of obtaining a loan. As authorized by the Agricultural Credit Act and our capital bylaws, the Board of Directors has adopted a capital plan that establishes a stock purchase requirement for obtaining a loan of 2.0% of the customer's total loan(s) or one thousand dollars, whichever is less. The purchase of one participation certificate is required of all non-stockholder customers who purchase financial services. The Board of Directors may increase the amount of required investment to the extent authorized in the capital bylaws. The borrower acquires ownership of the capital stock at the time the loan is made. The aggregate par value of the stock is added to the principal amount of the related obligation. We retain a first lien on the stock or participation certificates owned by customers.

PROTECTION MECHANISMS

Under the Farm Credit Act, certain borrower equity is protected. We are required to retire protected borrower equity at par or stated value regardless of its book value. Protected borrower equity includes capital stock and participation certificates that were outstanding as of January 6, 1988, or were issued prior to October 6, 1988 as a requirement for obtaining a loan. If we were to be unable to retire protected borrower equity at par value or stated value, the FCSIC would provide the amounts needed to retire this equity.

REGULATORY CAPITALIZATION REQUIREMENTS

Regulatory Capital Requirements and Ratios

As of December 31	2019	2018	2017	Regulatory Minimums	Capital Conservation Buffer	Total
Risk-adjusted:						
Common equity tier 1 ratio	16.7%	16.4%	16.4%	4.5%	2.5%*	7.0%
Tier 1 capital ratio	16.7%	16.4%	16.4%	6.0%	2.5%*	8.5%
Total regulatory capital ratio	17.6%	17.3%	17.0%	8.0%	2.5%*	10.5%
Permanent capital ratio	16.9%	16.6%	16.5%	7.0%	N/A	7.0%
Non-risk-adjusted:						
Tier 1 leverage ratio	17.7%	17.6%	17.5%	4.0%	1.0%	5.0%
Unallocated retained earnings and equivalents leverage ratio	18.8%	18.6%	18.4%	1.5%	N/A	1.5%

*The 2.5% capital conservation buffer over risk-adjusted ratio minimums was phased in over three years under the FCA capital requirements. The phase in period ended on December 31, 2019.

Risk-adjusted assets have been defined by the FCA Regulations as the Statement of Condition assets and off-balance-sheet commitments adjusted by various percentages, depending on the level of risk inherent in the various types of assets.

Risk-adjusted assets is calculated differently for the permanent capital ratio (referred herein as PCR risk-adjusted assets) compared to the other risk-based capital ratios. The primary difference is the inclusion of the allowance for loan losses as a deduction to risk-adjusted assets for the permanent capital ratio.

These ratios are based on a three-month average daily balance in accordance with FCA Regulations and are calculated as follows (not all items below may be applicable to our Association):

- Common equity tier 1 ratio is statutory minimum purchased member stock, other required member stock held for a minimum of 7 years, allocated equities held for a minimum of 7 years or not subject to retirement, unallocated retained earnings as regulatorily prescribed, paid-in capital, less certain regulatory required deductions including the amount of allocated investments in other System institutions, and the amount of purchased investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- Tier 1 capital ratio is common equity tier 1 plus non-cumulative perpetual preferred stock, divided by average risk-adjusted assets.
- Total regulatory capital is tier 1 capital plus other required member stock held for a minimum of 5 years, allocated equities held for a minimum of 5 years, subordinated debt, and limited-life preferred stock greater than 5 years to maturity at issuance subject to certain limitations, allowance for loan losses and reserve for credit losses subject to certain limitations, less certain investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- Permanent capital ratio is all at-risk borrower stock, any allocated excess stock, unallocated retained earnings as regulatorily prescribed, paid-in capital, subordinated debt, and preferred stock subject to certain limitations, less certain allocated and purchased investments in other System institutions divided by PCR risk-adjusted assets.
- Tier 1 leverage ratio is tier 1 capital, including regulatory deductions, divided by average assets less regulatory deductions subject to tier 1 capital.
- Unallocated retained earnings and equivalents leverage ratio is unallocated retained earnings as regulatorily prescribed, paid-in capital,

allocated surplus not subject to retirement less certain regulatory required deductions including the amount of allocated investments in other System institutions divided by average assets less regulatory deductions subject to tier 1 capital.

If the capital ratios fall below the total requirements, including the buffer amounts, capital distributions (equity redemptions, dividends, and patronage) and discretionary senior executive bonuses are restricted or prohibited without prior FCA approval.

The regulatory capital requirements allow for allotment agreements for only the permanent capital ratio and, as such, any stock in excess of our AgriBank required investment was not included in the common equity tier 1, tier 1 capital, total regulatory capital, or leverage ratios. We had no allocated excess stock at December 31, 2019, 2018, or 2017.

DESCRIPTION OF EQUITIES

The following represents information regarding classes and number of shares of stock and participation certificates outstanding. All shares and participation certificates are stated at a $5.00 par value.

	Number of Shares		
As of December 31	2019	2018	2017
Class A common stock (protected)	1	1	1
Class B common stock (at-risk)	4,119,368	4,012,967	3,954,488
Class E participation certificates (at-risk)	484,545	467,218	473,841
Class F participation certificates (protected)	153	153	153

Under our bylaws, we are also authorized to issue Class C and Class D common stock. Each of these classes of common stock is at-risk and nonvoting with a $5.00 par value per share. Currently, no stock of these classes has been issued.

Only holders of Class B common stock have voting rights. Our bylaws do not prohibit us from paying dividends on any classes of stock. However, no dividends have been declared to date.

Our bylaws generally permit stock and participation certificates to be retired at the discretion of our Board of Directors and in accordance with our capitalization plans, provided prescribed capital standards have been met. At December 31, 2019, we exceeded the prescribed standards. We do not anticipate any significant changes in capital that would affect the normal retirement of stock.

In the event of our liquidation or dissolution, according to our bylaws, any remaining assets after payment or retirement of all liabilities will be distributed pro rata to all holders of stock and participation certificates.

In the event of impairment, losses will be absorbed by concurrent impairment of all classes of stock and participation certificates; however, protected stock will be retired at par value regardless of impairment.

All classes of stock, except Class A common stock and Class F participation certificates, are transferable to other customers who are eligible to hold such class as long as we meet the regulatory minimum capital requirements.

PATRONAGE DISTRIBUTIONS

We accrued patronage distributions of $100.0 million, $82.0 million, and $50.0 million at December 31, 2019, 2018, and 2017, respectively. The patronage distributions are paid in cash during the first quarter after year-end. The Board of Directors may authorize a distribution of earnings provided we meet all statutory and regulatory requirements.

The FCA Regulations prohibit patronage distributions to the extent they would reduce our permanent capital ratio below the minimum permanent capital adequacy standards. Additionally, patronage distributions may be restricted or prohibited without prior FCA approval if capital ratios fall below the total requirements, including the buffer amounts.

NOTE 9: INCOME TAXES

The Tax Cuts and Jobs Act (the Act) was enacted in December of 2017. This Act contained various tax law changes, including a federal statutory tax rate change to 21% from 35%, effective January 1, 2018. Because deferred tax assets and liabilities are expected to be recognized in the Association's tax return in a future year, when the new statutory tax rate would be applicable, the deferred tax assets and liabilities as of December 31, 2017, were valued using a blended federal/state effective tax rate based on the new federal statutory tax rate. The effect of this revaluation was recognized in our provision for income taxes for the year ended December 31, 2017.

Provision for Income Taxes
(dollars in thousands)

For the year ended December 31	2019	2018	2017
Current:			
Federal	$1,049	$3,065	$5,409
State	297	345	811
Total current	$1,346	$3,410	$6,220
Deferred:			
Federal	$367	$(2,140)	$2,712
State	24	(122)	20
Total deferred	391	(2,262)	2,732
Provision for income taxes	$1,737	$1,148	$8,952
Effective tax rate	0.8%	0.6%	5.6%

Reconciliation of Taxes at Federal Statutory Rate to Provision for Income Taxes
(in thousands)

For the year ended December 31	2019	2018	2017
Federal tax at statutory rates	$43,709	$39,125	$56,227
State tax, net	403	429	383
Patronage distributions	(3,360)	(2,520)	(3,500)
Effect of non-taxable entity	(37,545)	(33,845)	(45,204)
Change in statutory tax rates due to the Tax Cuts and Jobs Act	—	—	1,656
Other	(1,470)	(2,041)	(610)
Provision for income taxes	$1,737	$1,148	$8,952

DEFERRED INCOME TAXES

Tax laws require certain items to be included in our tax returns at different times than the items are reflected on our Consolidated Statements of Comprehensive Income. Some of these items are temporary differences that will reverse over time. We record the tax effect of temporary differences as deferred tax assets and liabilities netted on our Consolidated Statements of Condition.

Deferred Tax Assets and Liabilities
(in thousands)

As of December 31	2019	2018	2017
Allowance for loan losses	$7,283	$6,540	$5,012
Postretirement benefit accrual	550	566	581
Accrued incentive	740	610	589
Accrued patronage income not received	(746)	—	(884)
AgriBank 2002 allocated stock	(1,017)	(1,018)	(1,012)
Accrued pension asset	(2,508)	(1,928)	(1,608)
Depreciation	151	121	(37)
Other assets	321	280	238
Other liabilities	(355)	(362)	(332)
Deferred tax assets, net	$4,419	$4,809	$2,547
Gross deferred tax assets	$9,045	$8,117	$6,420
Gross deferred tax liabilities	$(4,626)	$(3,308)	$(3,873)

A valuation allowance for the deferred tax assets was not necessary at December 31, 2019, 2018, or 2017.

We have not provided for deferred income taxes on patronage allocations received from AgriBank prior to 1993. Such allocations, distributed in the form of stock, are subject to tax only upon conversion to cash. Our intent is to permanently maintain this investment in AgriBank. Our total permanent investment in AgriBank is $46.0 million. Additionally, we have not provided deferred income taxes on accumulated FLCA earnings of $1.6 billion, as it is our intent to permanently maintain this equity in the FLCA or to distribute the earnings to members in a manner that results in no additional tax liability to us.

Our income tax returns are subject to review by various United States taxing authorities. We record accruals for items that we believe may be challenged by these taxing authorities. However, we had no uncertain income tax positions at December 31, 2019. In addition, we believe we are no longer subject to income tax examinations for years prior to 2016.

NOTE 10: EMPLOYEE BENEFIT PLANS

PENSION AND POST-EMPLOYMENT BENEFIT PLANS

Complete financial information for the pension and post-employment benefit plans may be found in the AgriBank 2019 Annual Report.

The Farm Credit Foundations Plan Sponsor and Trust Committees provide oversight of the benefit plans. These governance committees are comprised of elected or appointed representatives (senior leadership and/or Board of Director members) from the participating organizations. The Plan Sponsor Committee is responsible for employer decisions regarding all benefit plans including retirement benefits. These decisions could include plan design changes, vendor changes, determination of employer subsidies (if any), and termination of specific benefit plans. Any action to change or terminate the retirement plan can only occur at the direction of the AgriBank District participating employers. The Trust Committee is responsible for fiduciary and plan administrative functions.

Pension Plan: Certain employees participate in the AgriBank District Retirement Plan, a District-wide multi-employer defined benefit retirement plan. The Department of Labor has determined the plan to be a governmental plan; therefore, the plan is not subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA). As the plan is not subject to ERISA, the plan’s benefits are not insured by the Pension Benefit Guaranty Corporation. Accordingly, the amount of accumulated benefits that participants would receive in the event of the plan’s termination is contingent on the sufficiency of the plan’s net assets to provide benefits at that time. This plan is noncontributory and covers certain eligible District employees. The assets, liabilities, and costs of the plan are not segregated by participating entities. As such, plan assets are available for any of the participating employers’ retirees at any point in time. Additionally, if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers. Further, if we choose to stop participating in the plan, we may be required to pay an amount based on the underfunded status of the plan. Because of the nature of the plan, any individual employer is not able to unilaterally change the provisions of the plan. If an employee transfers to another employer within the same plan, the employee benefits under the plan transfer. Benefits are based on salary and years of service. There is no collective bargaining agreement in place as part of this plan.

AgriBank District Retirement Plan Information
(in thousands)

As of December 31	2019	2018	2017
Unfunded liability	$220,794	$274,450	$352,516
Projected benefit obligation	1,421,126	1,272,063	1,371,013
Fair value of plan assets	1,200,332	997,613	1,018,497
Accumulated benefit obligation	1,298,942	1,125,682	1,184,550

For the year ended December 31	2019	2018	2017
Total plan expense	$36,636	$51,900	$44,730
Our allocated share of plan expenses	3,503	4,852	4,158
Contributions by participating employers	90,000	90,000	90,000
Our allocated share of contributions	8,654	8,466	8,493

The unfunded liability reflects the net of the fair value of the plan assets and the projected benefit obligation at the date of these Consolidated Financial Statements. The projected benefit obligation is the actuarial present value of all benefits attributed by the pension benefit formula to employee service rendered prior to the measurement date based on assumed future compensation levels. The accumulated benefit obligation is the actuarial present value of the benefits attributed to employee service rendered before the measurement date and based on current employee service and compensation. The funding status is subject to many variables including performance of plan assets and interest rate levels. Therefore, changes in assumptions could significantly affect these estimates.

Costs are determined for each individual employer based on costs directly related to their current employees as well as an allocation of the remaining costs based proportionately on the estimated projected liability of the employer under this plan. We recognize our proportional share of expense and contribute a proportional share of funding. Our allocated share of plan expenses is included in “Salaries and employee benefits” in the Consolidated Statements of Comprehensive Income.

Benefits paid to participants in the District were $68.8 million in 2019. While the plan is a governmental plan and is not subject to minimum funding requirements, the employers contribute amounts necessary on an actuarial basis to provide the plan with sufficient assets to meet the benefits to be paid to participants. The amount of the total District employer contributions expected to be paid into the pension plan during 2020 is $90.0 million. Our allocated share of these pension contributions is expected to be $8.5 million. The amount ultimately to be contributed and the amount ultimately recognized as expense as well as the timing of those contributions and expenses, are subject to many variables including performance of plan assets and interest rate levels. These variables could result in actual contributions and expenses being greater than or less than the amounts reflected in the District financial statements.

We also participate in the District-wide nonqualified defined benefit Pension Restoration Plan. This plan restores retirement benefits to certain highly compensated eligible employees that would have been provided under the qualified plan if such benefits were not above certain Internal Revenue Code limits.

Pension Restoration Plan Information
(in thousands)

As of December 31	2019	2018	2017
Our unfunded liability	$5,611	$4,602	$4,021

For the year ended December 31	2019	2018	2017
Our allocated share of plan expenses	$620	$586	$508
Our cash contributions	11	11	269

The nonqualified plan is funded as the benefits are paid; therefore, there are no assets in the plan and the unfunded liability is equal to the projected benefit obligation. The recognition of the unfunded liability includes the impact of prior service cost and unamortized gain/loss. The increase in the liability was offset against accumulated other comprehensive loss and had no impact to net income. The amount of the pension benefits funding status is subject to many variables including interest rate levels. Therefore, changes in assumptions could significantly affect these estimates.

Costs are determined for each individual employer based on costs directly related to their participants in the plan. Our allocated share of the components of net periodic benefit cost other than the service cost component, are included in "Other operating expenses" in the Consolidated Statements of Comprehensive Income. Service costs related to the plan are included in "Salaries and employee benefits" in the Consolidated Statements of Comprehensive Income. The Pension Restoration Plan is unfunded and we make annual contributions to fund benefits paid to our retirees covered by the plan. Our cash contributions are equal to the benefits paid. There were no benefits paid under the Pension Restoration Plan to our senior officers who were actively employed during the year.

Retiree Medical Plans: District employers also provide certain health insurance benefits to eligible retired employees according to the terms of the benefit plans. The anticipated costs of these benefits are accrued during the period of the employee's active status.

Retiree Medical Plan Information
(in thousands)

For the year ended December 31	2019	2018	2017
Postretirement benefit (income) expense	$(53)	$(90)	$63
Our cash contributions	163	156	153

The 2019 and 2018 postretirement benefit income is due to an actuarial gain. Postretirement benefit (income) expense is included in "Salaries and employee benefits" in the Consolidated Statements of Comprehensive Income. Our cash contributions are equal to the benefits paid.

DEFINED CONTRIBUTION PLANS

We participate in a District-wide defined contribution plan. For employees hired before January 1, 2007, employee contributions are matched dollar for dollar up to 2.0% and 50 cents on the dollar on the next 4.0% on both pre-tax and post-tax contributions. The maximum employer match is 4.0%. For employees hired after December 31, 2006, we contribute 3.0% of the employee's compensation and will match employee contributions dollar for dollar up to a maximum of 6.0% on both pre-tax and post-tax contributions. The maximum employer contribution is 9.0%.

We also participate in a District-wide Nonqualified Deferred Compensation Plan. Eligible participants must meet one of the following criteria: certain salary thresholds as determined by the IRS, are either a Chief Executive Officer or President of a participating employer, or have previously elected pre-tax deferrals in 2006 under predecessor nonqualified deferred compensation plans. Under this plan the employee may defer a portion of his/her salary, bonus, and other compensation. Additionally, the plan provides for supplemental employer matching contributions related to any compensation deferred by the employee that would have been eligible for a matching contribution under the defined contribution plan if it were not for certain IRS limitations.

Employer contribution expenses for the defined contribution plan, included in "Salaries and employee benefits" in the Consolidated Statements of Comprehensive Income, were $3.2 million, $2.9 million, and $2.6 million in 2019, 2018, and 2017, respectively. These expenses were equal to our cash contributions for each year.

NOTE 11: RELATED PARTY TRANSACTIONS

In the ordinary course of business, we may enter into loan transactions with our officers, directors, their immediate family members, and other organizations with which such persons may be associated. Such transactions may be subject to special approval requirements contained in the FCA Regulations and are made on the same terms, including interest rates, amortization schedules, and collateral, as those prevailing at the time for comparable transactions with other persons. FCA Regulations also require disclosure of a loan to a senior officer or director, or to any organization affiliated with such person that involves more than the normal risk of collectability.

Ronald W. Lucas, a director, has loan relationships with GreenStone Farm Credit Services, ACA through an affiliated entity. Subsequent to May 2017, each of the loans under the relationship were classified as substandard as the loans were deemed to involve more than the normal risk of collectability. The largest aggregate amount of indebtedness outstanding at any time was $2.4 million during 2019, $2.6 million during 2018 and $2.6 million during 2017. The purposes of these loans were operating expenses, and equipment and real estate purchases. The aggregate principal balances of the loans were $2.3 million on December 31, 2019, $2.4 million on December 31, 2018 and $2.6 million on December 31, 2017. The reason these loans involved more than the normal risk of collectability was due to insufficient earnings which was deemed to create inadequate repayment capacity. The Association Bylaw requirements were met which require the submission of a plan that is reasonably designed to "substantially improve" the farm business financial position with the overall objective to upgrade the loan classification within a reasonable period of time. The loan payments were current on December 31, 2019, December 31, 2018 and December 31, 2017 with no amount past due.

Related Party Loans Information
(in thousands)

As of December 31:	2019	2018	2017
Total related party loans	$36,180	$42,076	$46,737
For the year ended December 31:	**2019**	**2018**	**2017**
Advances to related parties	$15,521	$23,433	$23,396
Repayments by related parties	28,229	32,841	31,508

The related parties can be different each year end primarily due to changes in the composition of the Board of Directors and the mix of organizations with which such persons may be associated. Advances and repayments on loans in the preceding chart are related to those considered related parties at year-end.

As discussed in Note 7 we borrow from AgriBank, in the form of a line of credit, to fund our loan portfolio. All interest expense as shown on the Consolidated Statements of Comprehensive Income was paid to AgriBank.

Total patronage received from AgriBank, which includes a partnership distribution from AgDirect, LLP, was $51.4 million, $45.3 million, and $41.3 million in 2019, 2018, and 2017, respectively. Patronage income for 2019 was paid in cash and AgriBank stock. Patronage income for 2018 and 2017 was paid in cash.

In addition, we received compensation from AgriBank for servicing loans of $276 thousand, $332 thousand, and $391 thousand in 2019, 2018, and 2017, respectively.

Refer to Note 3 for information on participations sold to AgriBank and Note 4 for stock investment in AgriBank information.

We purchase various services from AgriBank and SunStream Business Services (SunStream), a division of AgriBank. The services include certain financial and retail systems, financial reporting services, tax reporting services, technology services, and insurance services. The total cost of services we purchased from AgriBank was $2.1 million, $1.9 million, and

$1.9 million in 2019, 2018, and 2017, respectively. In January 2020, the FCA provided regulatory approval for the formation of a separate service entity, SunStream. Subsequent to the formation of SunStream, effective April 1, 2020, we will continue to purchase services from SunStream.

We also purchase human resource information systems, and benefit, payroll, and workforce management services from Farm Credit Foundations (Foundations). As of December 31, 2019, 2018, and 2017, our investment in Foundations was $59 thousand. The total cost of services purchased from Foundations was $419 thousand, $344 thousand, and $322 thousand in 2019, 2018, and 2017, respectively.

NOTE 12: CONTINGENCIES AND COMMITMENTS

In the normal course of business, we have various contingent liabilities and commitments outstanding, which may not be reflected in the Consolidated Financial Statements. We do not anticipate any material losses because of these contingencies or commitments.

We may be named as a defendant in certain lawsuits or legal actions in the normal course of business. At the date of these Consolidated Financial Statements, our management team was not aware of any material actions. However, management cannot ensure that such actions or other contingencies will not arise in the future.

We have commitments to extend credit and letters of credit to satisfy the financing needs of our borrowers. These financial instruments involve, to varying degrees, elements of credit risk that may be recognized in the financial statements. Commitments to extend credit are agreements to lend to a borrower as long as there is not a violation of any condition established in the loan contract. Standby letters of credit are agreements to pay a beneficiary if there is a default on a contractual arrangement. At December 31, 2019, we had commitments to extend credit and unexercised commitments related to standby letters of credit of $2.3 billion. Additionally, we had $23.5 million of issued standby letters of credit as of December 31, 2019.

Commitments to extend credit and letters of credit generally have fixed expiration dates or other termination clauses and we may require payment of a fee. If commitments to extend credit and letters of credit remain unfulfilled or have not expired, they may have credit risk not recognized in the financial statements. Many of the commitments to extend credit and letters of credit will expire without being fully drawn upon. Therefore, the total commitments do not necessarily represent future cash requirements. Certain letters of credit may have recourse provisions that would enable us to recover from third parties amounts paid under guarantees, thereby limiting our maximum potential exposure. The credit risk involved in issuing these financial instruments is essentially the same as that involved in extending loans to borrowers and we apply the same credit policies. The amount of collateral obtained, if deemed necessary by us upon extension of credit, is based on management's credit evaluation of the borrower.

NOTE 13: FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or most advantageous market for the asset or liability. Accounting guidance also establishes a fair value hierarchy, with three input levels that may be used to measure fair value. Refer to Note 2 for a more complete description of the three input levels.

We did not have any assets or liabilities measured at fair value on a recurring basis at December 31, 2019, 2018, or 2017.

NON-RECURRING BASIS

We may be required, from time to time, to measure certain assets at fair value on a non-recurring basis.

Assets Measured at Fair Value on a Non-recurring Basis
(in thousands)

As of December 31, 2019	Fair Value Measurement Using			Total Fair
	Level 1	Level 2	Level 3	Value
Impaired loans	$ —	$ —	$29,776	$29,776
Acquired property	—	—	4,699	4,699

As of December 31, 2018	Fair Value Measurement Using			Total Fair
	Level 1	Level 2	Level 3	Value
Impaired loans	$ —	$ —	$53,946	$53,946
Acquired property	—	—	4,891	4,891

As of December 31, 2017	Fair Value Measurement Using			Total Fair
	Level 1	Level 2	Level 3	Value
Impaired loans	$ —	$ —	$16,154	$16,154
Acquired property	—	—	4,483	4,483

VALUATION TECHNIQUES

Impaired Loans: Represents the carrying amount of loans which were evaluated for individual impairment based on the appraised value of the underlying collateral. When the value of the collateral, less estimated costs to sell, is less than the principal balance of the loan, a specific reserve is established. Costs to sell represent transaction costs and are not included as a component of the asset's fair value. If the process uses observable market-based information, they are classified as Level 2. If the process requires significant input based on management's knowledge of and judgment about current market conditions, specific issues relating to the collateral and other matters, they are classified as Level 3.

Acquired property: Represents the fair value of foreclosed assets measured based on the collateral value, which is generally determined using appraisals, or other indications based on sales of similar properties. Costs to sell represent transaction costs and are not included as a component of the asset's fair value. If the process uses observable market-based information, they are classified as Level 2. If the process requires significant input based on management's knowledge of and judgment about current market conditions, specific issues relating to the property and other matters, they are classified as Level 3.

NOTE 14: SUBSEQUENT EVENTS

We have evaluated subsequent events through March 6, 2020, which is the date the Consolidated Financial Statements were available to be issued. There have been no material subsequent events that would require recognition in our 2019 Consolidated Financial Statements or disclosure in the Notes to Consolidated Financial Statements.

Disclosure Information Required By Regulations

GREENSTONE FARM CREDIT SERVICES, ACA
(Unaudited)

DESCRIPTION OF BUSINESS
General information regarding the business is incorporated herein by reference from Note 1 to the Consolidated Financial Statements in this Annual Report.

The description of significant business developments, if any, is incorporated herein by reference from the Management's Discussion and Analysis section of this Annual Report.

DESCRIPTION OF PROPERTY

Property Information

Location	Description	Usage
Adrian, MI	Owned	Branch Office
Allegan, MI	Owned	Branch Office
Alma, MI	Owned	Branch Office
Alpena, MI	Owned	Branch Office
Ann Arbor, MI	Owned	Branch Office
Bad Axe, MI	Owned	Branch Office
Bay City, MI	Owned	Branch Office
Berrien Springs, MI	Owned	Branch Office
Cadillac, MI	Owned	Branch Office
Caro, MI	Owned	Branch Office
Charlotte, MI	Leased	Branch Office
Clintonville, WI	Owned	Branch Office
Coleman, WI	Owned	Branch Office
Concord, MI	Owned	Branch Office
Corunna, MI	Owned	Branch Office
East Lansing, MI	Owned	Corporate
Escanaba, MI	Leased	Branch Office
Grand Rapids, MI	Owned	Branch Office
Hart, MI	Leased	Branch Office
Hastings, MI	Owned	Branch Office
Howell, MI	Leased	Branch Office
Ionia, MI	Owned	Branch Office
Jonesville, MI	Owned	Branch Office
Lakeview, MI	Owned	Branch Office
Lapeer, MI	Owned	Branch Office
Little Chute, WI	Owned	Branch Office
Manitowoc, WI	Leased	Branch Office
Mason, MI	Leased	Branch Office
Monroe, MI	Owned	Branch Office
Mt. Pleasant, MI	Owned	Branch Office
Saginaw, MI	Owned	Branch Office
Sandusky, MI	Owned	Branch Office
Schoolcraft, MI	Owned	Branch Office
St. Johns, MI	Owned	Branch Office
Sturgeon Bay, WI	Leased	Branch Office
Traverse City, MI	Owned	Branch Office

LEGAL PROCEEDINGS
Information regarding legal proceedings is discussed in Note 12 to the Consolidated Financial Statements in this Annual Report. We were not subject to any enforcement actions as of December 31, 2019.

ADDITIONAL REGULATORY CAPITAL DISCLOSURE
Regulatory Capital Ratios Pursuant to FCA Regulation 620.5

As of December 31	2014	2013	2012
Permanent capital ratio	16.2%	14.7%	14.6%
Total surplus ratio	15.9%	14.3%	14.3%
Core surplus ratio	15.9%	14.3%	14.3%

Refer to the Consolidated Five-Year Summary of Selected Financial Data at the beginning of this Annual Report for capital ratio calculations for the past five years.

DESCRIPTION OF CAPITAL STRUCTURE
Information regarding our capital structure is discussed in Note 8 to the Consolidated Financial Statements in this Annual Report.

DESCRIPTION OF LIABILITIES
Information regarding liabilities is discussed in Notes 7, 8, 9, 10, and 12 to the Consolidated Financial Statements in this Annual Report. All debt and other liabilities in the financial statements are uninsured.

SELECTED FINANCIAL DATA
The Consolidated Five-Year Summary of Selected Financial Data is presented at the beginning of this Annual Report.

MANAGEMENT'S DISCUSSION AND ANALYSIS
Information regarding any material aspects of our financial condition, changes in financial condition, and results of operations are discussed in the Management's Discussion and Analysis section of this Annual Report.

BOARD OF DIRECTORS

Board of Directors as of December 31, 2019, including business experience during the last five years

Name	Term	Principal Occupation and Other Affiliations
Edward L. Reed (Age 57) Board Chair Executive Committee, Chair Compensation Committee Service Began: June 2008	2018-2022	**Principal Occupation:** Self-employed livestock and grain farmer Member-Manager: Reed Family Farms, LLC Member-Manager: Reed Family Properties, LLC **Other Affiliations:** Board Member: Michigan Pork Producers Association Board Chair: Three Rivers Health Foundation Board Member: Farm Credit Foundations
Bruce E. Lewis (Age 54) Board Vice Chair Executive Committee, Vice Chair Compensation Committee, Chair Service Began: June 2011	2017-2021	**Principal Occupation:** Self-employed dairy and grain crop farmer **Other Affiliations:** Vice President: Hillsdale-Litchfield Local Michigan Milk Producers Association Resolutions Committee Board Member: Hillsdale County Farm Bureau
Laura A. Braun (Age 60) Legislative/Public Policy Committee, Chair Service Began: June 2012	2019-2023	**Principal Occupation:** Self-employed farmer and former small business owner Partner: Golden Maple Farms, LLC Independent Sales Agent: Stine Seeds **Other Affiliations:** Board Chair: AgriBank District Farm Credit Council Director: State of Michigan Rural Development Fund Board Committee: Michigan Farm Bureau AgriPAC Director and Third Member: Clinton County Farm Bureau Board of Directors Chair: Clinton County Farm Bureau, Policy Development Committee Board Member: Great Lakes Leadership Academy Leadership Development Program Member: Farm Credit Council
William "Hank" Choate (Age 69) Legislative/Public Policy Committee Service Began: June 2014	2017-2021	**Principal Occupation:** Self-employed dairy and grain farmer Partner: Choate's Belly Acres Member-Manager: Liberty Centennial, LLC **Other Affiliations:** Board Member: Michigan Milk Producers Association Board Member: United Dairy of Michigan Planning Committee: Liberty Township Advisory Committee: NorthStar Cooperative Advisory Committee: Michigan Farm Bureau Committee: Jackson County Republican
Eugene B. College (Age 74) Appointed Director Audit Committee, Chair Service Began: June 2009	2018-2022	**Principal Occupation:** Retired Senior Vice President and Chief Financial Officer of Farm Credit Services of America, ACA
Thomas R. Durand (Age 64) Audit Committee Service Began: June 2013	2016-2020	**Principal Occupation:** Self-employed sugar beet, dry beans, and grain farmer President: Durand Farms, Inc. **Other Affiliations:** Director: Corn Marketing Program of Michigan
Terri J. Hawbaker (Age 39) Finance Committee, Chair Service Began: June 2015	2019-2023	**Principal Occupation:** Self-employed dairy farmer Owner/Operator: Grazeway Dairy Farms

Name	Term	Principal Occupation and Other Affiliations
Ronald W. Lucas (Age 63) Finance Committee, Vice Chair Service Began: June 2013	2016-2020	**Principal Occupation:** Self-employed dairy farmer Member-Manager: Lucas Dairy Farms LLC **Other Affiliations:** Supervisor: Wellington Township Committee Member: Michigan Milk Producers Association Resolutions Committee
Peter C. Maxwell (Age 35) Audit Committee Service Began: June 2016	2016-2020	**Principal Occupation:** Self-employed grain farmer Independent Sales Agent: ACH Seeds Employee: Maxwell Seed Farms raising cash crops **Other Affiliations:** Chair: Gladwin County Farm Bureau Young Farmer Vice Chair: Michigan Sugar Company West District Secretary: Michigan Sugar REACH Committee
Dennis C. Muchmore (Age 73) Appointed Director Legislative/Public Policy Committee Service Began: June 2002	2017-2021	**Principal Occupation:** Government Relations and Regulatory Advisor: Honigman LLP Former Chief of Staff to Governor of the State of Michigan **Other Affiliations:** Partner: TOMDEN Enterprises, LLC (privately held investment firm with limited business interests in aeronautic composites) Board of Trustees: Oakland University
Scott A. Roggenbuck (Age 57) Executive Committee Compensation Committee, Vice Chair Service Began: June 2007	2016-2020	**Principal Occupation:** Agronomy Consultant: Star of the West Milling Company Former self-employed grain farmer Partner: Cedar Pond Farms Inc. (grain and sugar beet operation) Partner: Cedar Pond Holdings, LLC (family partnership owning farmland) Director: Cedar Pond Ag Services Inc. (custom farming and consulting)
Troy J. Sellen (Age 35) Finance Committee Service Began: June 2019	2019-2023	**Principal Occupation:** Self-employed dairy farmer Managing Member: Valley Line Dairy LLC Managing Member: Valley Line Properties LLC
Aaron "Andy" Snider (Age 57) Executive Committee Compensation Committee Service Began: June 2012	2018-2022	**Principal Occupation:** Self-employed turkey, hog, and cash grain farmer Member-Manager: Snider Farms, LLC Member-Manager: Snider RE, LLC Member-Manager: A Z Snider, LLC **Other Affiliations:** Board Member: Michigan Turkey Producers Executive Council: Land O'Lakes Co-op Region IV Committee Member: Land O'Lakes Policy and Resolutions Committee
Michael R. Timmer (Age 51) Finance Committee Service Began: June 2018	2018-2022	**Principal Occupation:** Self-employed grain and livestock farmer Member-Manager: Timmer Family Farms, LLC
Dale L. Wagner (Age 60) Audit Committee, Vice Chair Service Began: June 2012	2019-2023	**Principal Occupation:** Self-employed dairy, grain farmer, and custom harvester Member-Manager: Twin Elm Family Farm, LLC Member-Manager: Union 151, LLC **Other Affiliations:** Vice Chair: Wisconsin Farm Credit Legislative Committee (GreenStone representative) Board Member: AgriBank District Farm Credit Council
Jed Welder (Age 51) Legislative/Public Policy Committee, Vice Chair Service Began: June 2018	2018-2022	**Principal Occupation:** Self-employed grain farmer and custom harvester **Other Affiliations:** Director: Montcalm Conservation District Board Member: Farmer Veteran Coalition Trustee: Sidney Township Board

Effective July 1, 2019, the Board Chair and Chair of the Audit Committee each received annual retainer fees of $36 thousand, an increase from $28 thousand. The Board Vice Chair received $34 thousand, an increase from $26 thousand. The remaining board members received $32 thousand, an increase from $24 thousand. Additionally, all board members received an annual $600 computer allowance. The retainer fees are paid quarterly. In 2019, the board members did not receive compensation for individual board or regular committee meetings attended. Per diem is paid for attendance at ad hoc committee meetings only at the rate of $300 per day.

Information regarding compensation paid to each director who served during 2019 follows:

	Number of Days Served			
	Board Meetings	Other Official Activities	Name of Committee	Total Compensation Paid in 2019
Matthew L. Berge(2)	2	7	Finance	$11,179
Laura A. Braun	4	25	Legislative/Public Policy	$29,200
William "Hank" Choate	4	17	Legislative/Public Policy	$28,600
Eugene B. College	4	16	Audit	$32,600
Thomas R. Durand	4	18	Audit	$28,600
Terri J. Hawbaker	4	11	Finance	$28,600
Bruce E. Lewis	4	10	Executive/Compensation	$30,600
Ronald W. Lucas	4	18	Finance	$28,600
Peter C. Maxwell	3	15	Audit	$28,600
Dennis C. Muchmore	4	18	Legislative/Public Policy	$28,600
Edward L. Reed	4	15	Executive/Compensation	$32,600
Scott A. Roggenbuck	4	10	Executive/Compensation	$28,600
Troy J. Sellen(1)	2	8	Finance	$17,421
Aaron "Andy" Snider	4	25	Executive/Compensation	$30,400
Michael R. Timmer	4	13	Finance	$28,600
Dale L. Wagner	4	25	Audit	$29,200
Jed Welder	4	16	Legislative/Public Policy	$28,600
				$470,600

(1)Newly elected director
(2)Term expired June 2019

SENIOR OFFICERS
The senior officers include:

David B. Armstrong
Chief Executive Officer

Paul E. Anderson
Executive Vice President – Chief Credit Officer

Bethany L. Barker, SPHR
Executive Vice President – Chief Human Resources Officer

Travis D. Jones, CPA
Executive Vice President – Chief Financial Officer

Stephen A. Junglas
Executive Vice President – Chief Information Officer and Chief Information Security Officer

Peter L. Lemmer
Executive Vice President – Chief Legal Counsel

Melissa A. Stolicker, CPA
Executive Vice President – Chief Internal Auditor

David B. Armstrong was promoted to Chief Executive Officer (CEO) in 2009. Paul E. Anderson was promoted to Chief Credit Officer in 2009. Bethany L. Barker has been in her position as Chief Human Resources Officer since 1998. Travis D. Jones was hired as Chief Financial Officer in 2007. Stephen A. Junglas was promoted to Chief Information Officer in 2012. Peter L. Lemmer was hired as Chief Legal Counsel in 2008. Melissa A. Stolicker has been in her position as Chief Internal Auditor since 2004.

Other business interests where a senior officer served as a board of director or senior officer include:

David B. Armstrong serves as a board member and Treasurer for the Michigan Livestock Exhibition (non-profit to generate funding for youth scholarships through annual livestock shows and auctions). He also serves as a board member of the Farm Credit System Association Captive Insurance Company (privately-held insurance association that is owned by the System) and as a board member for Crystal Flash Energy Company (provides fuels and lubes to residential and commercial customers throughout primarily the state of Michigan).

Travis D. Jones serves as a board member for Michigan Finance Authority (offers effective low-cost financing to public and private agencies providing essential services to the citizens of Michigan). He also serves as a board member of Michigan FFA Association (dedicated to making a positive difference in the lives of young people by developing their potential for premium leadership, personal growth, and career success through agricultural education).

Stephen A. Junglas serves as a board member for the Capital Area IT Council (committed to identifying, developing, and implementing real solutions for improving the quantity and quality of IT professionals in the region).

Melissa A. Stolicker serves as a member of the Board of Trustees and audit committee for Oakland University (major public university in Michigan offering bachelor's and graduate degrees). She also serves as a board member and an audit committee member of both Delta Dental of Michigan (dental insurance plan administrator) and Renaissance Health Services Corporation (dental insurance plan administrator).

Information related to compensation paid to senior officers is provided in our Annual Meeting Information Statement (AMIS). The AMIS is available for public inspection at our office.

TRANSACTIONS WITH SENIOR OFFICERS AND DIRECTORS
Information regarding related party transactions is discussed in Note 11 to the Consolidated Financial Statements in this Annual Report.

TRAVEL, SUBSISTENCE, AND OTHER RELATED EXPENSES
Directors and senior officers are reimbursed for reasonable travel, subsistence, and other related expenses associated with business functions. A copy of our policy for reimbursing these costs is available by contacting us at:

3515 West Road
East Lansing, MI 48823
(800) 968-0061
www.greenstonefcs.com
Travis.Jones@greenstonefcs.com

The total directors' travel, subsistence, and other related expenses were $156 thousand, $170 thousand, and $172 thousand in 2019, 2018, and 2017, respectively.

INVOLVEMENT IN CERTAIN LEGAL PROCEEDINGS
No events occurred during the past five years that are material to evaluating the ability or integrity of any person who served as a director or senior officer on January 1, 2020, or at any time during 2019.

MEMBER PRIVACY
The FCA Regulations protect members' nonpublic personal financial information. Our directors and employees are restricted from disclosing information about our Association or our members not normally contained in published reports or press releases.

RELATIONSHIP WITH QUALIFIED PUBLIC ACCOUNTANT
There were no changes in independent auditors since the last Annual Report to members and we are in agreement with the opinion expressed by the independent auditors. The total financial statement audit fees paid during 2019 were $83 thousand. Our engagement letter commits to reimbursing the external auditor for reasonable out-of-pocket expenses as incurred for travel. In addition, we incurred $5 thousand for tax services.

FINANCIAL STATEMENTS
The Report of Management, Report on Internal Control over Financial Reporting, Report of Audit Committee, Report of Independent Auditors, Consolidated Financial Statements, and Notes to Consolidated Financial Statements are presented prior to this portion of the Consolidated Financial Statements in this Annual Report.

YOUNG, BEGINNING, AND SMALL FARMERS AND RANCHERS
Information regarding credit and services to young, beginning, and small farmers and ranchers, and producers or harvesters of aquatic products is discussed in an addendum to this Annual Report.

Young, Beginning, and Small Farmers and Ranchers

GREENSTONE FARM CREDIT SERVICES, ACA
(Unaudited)

We have specific programs in place to serve the credit and related needs of young, beginning, and small farmers and ranchers (YBS) in our territory. The definitions of young, beginning, and small farmers and ranchers as developed by the Farm Credit Administration (FCA) follow:

- Young: A farmer, rancher, or producer or harvester of aquatic products who was age 35 or younger as of the date the loan was originally made,
- Beginning: A farmer, rancher, or producer or harvester of aquatic products who has 10 years or less of experience at farming, ranching, or producing or harvesting aquatic products as of the date the loan was originally made, and
- Small: A farmer, rancher, producer or harvester of aquatic products who normally generated less than $250,000 in annual gross sales of agricultural or aquatic products at the time the loan was originally made.

YOUNG, BEGINNING, AND SMALL FARMER DEMOGRAPHICS
The local service area of the Association includes the entire state of Michigan and 11 counties in the northeastern part of the state of Wisconsin. Results from the 2017 Census of Agriculture became available in April 2019 and were studied to try and determine the numbers of YBS farmers within our territory.

This most recent agricultural census represents the best demographic information available in our territory. Results of this study show the following:

Category	Number	Percent
Number of Farmers 35 and Younger	6,981	12.5%
Number of Farmers on Current Farm 10 Years or Less	15,108	27.1%
Number of Farmers with Less Than $250,000 Farm Sales	49,209	88.2%
Total Number of YBS Farmers	55,821	

DESCRIPTION AND STATUS REPORT ON THE YOUNG, BEGINNING, AND SMALL FARMER PROGRAM

The mission statement of the program is as follows:

"GreenStone Farm Credit Services recognizes the importance of young, beginning, and small farmers to the future of agriculture. The Association shall serve the unique needs of this market segment through special lending programs that extend credit in a safe and sound manner for both the individual member and the Association. GreenStone also believes in the value of education to prepare these producers to successfully compete in a highly competitive global marketplace and shall support educational opportunities for them that balance the cost of delivery with overall stockholder value."

The Association implemented a board approved YBS lending program comprised of separate components for YBS farmers. Relaxed underwriting standards and loan terms have been approved for farm operating loans, farm equipment and intermediate-term loans, and for real estate loans. These standards and terms are customized for young farmers and beginning farmers.

Quantitative targets based upon reasonably reliable demographic data have been established by board policy for YBS farmers. Targets have also been established for the YBS program in an aggregate. The targets are as follows:

Quantitative Targets	Measure	At 12/31/2019
1. Young farmers in portfolio equal to or greater than percentage of young farmers in the census	12.5%	24.0%
2. Young farmer loans at least 50% of the young farmers in census	50.0%	89.9%
3. Young farmers at least 10% total outstanding loan volume	10.0%	15.1%
4. Young farmers at least 10% of all new loans (number)	10.0%	20.8%
5. Beginning farmers at least 10% total number of loans outstanding	10.0%	38.8%
6. Beginning farmers at least 10% of total outstanding loan volume	10.0%	19.9%
7. Beginning farmers at least 10% of all new loans (number)	10.0%	28.8%
8. Small farmers at least 40% of total number of loans outstanding	40.0%	60.0%
9. Small farmers at least 20% of total outstanding loan volume	20.0%	21.0%
10. Small farmers at least 40% of all new loans (number)	40.0%	56.9%
11. Maintain at least 50% of total loan numbers to YBS farmers	50.0%	69.7%
12. Maintain at least 30% of the total outstanding loan volume to YBS farmers	30.0%	33.1%

The Association has also established certain qualitative goals addressing its efforts and to implement effective outreach programs to attract YBS farmers. These goals are as follows:

Qualitative Goals	Measure	At 12/31/2019
1. Related services will be offered to YBS farmers in the territory.		
Goals: Book sales of at least one Association offered related service to at least 5% of YBS farmers in the Association portfolio.	5% Young 5% Beginning 5% Small	4.8% 5.0% 10.0%
2. Credit services and financially related services to YBS farmers will be coordinated with governmental and private sources of credit.		
Goals: Coordinate with the USDA Farm Service Agency (FSA) to enhance credit services to young and beginning farmers by obtaining guarantees on at least 7.5% of loans (by number) and to take advantage of the FSA young farmer financing program utilizing private second mortgage financing or other alternative financing options whenever possible.	7.5% Young 7.5% Beg.	7.5% 4.1%
3. We will implement effective outreach programs to attract YBS farmers.		
Goals: (a) Participate in or sponsor annually at least 10 YBS farmer leadership and educational programs offered in either Michigan or Wisconsin.	10 Programs	23 Programs sponsored
(b) Offer at least five individual scholarships to deserving YBS farmers (or potential YBS farmers) to Michigan and/or Wisconsin Universities or Colleges.	5 Scholarships	20 Scholarships offered

All of the Association's quantitative and qualitative goals were met in 2019 with the following exceptions: related services to young farmers and the use of FSA guarantees on beginning farmer loans. There were fewer related services utilized by our beginning farmers during 2019. The strength of the financial position of our YBS borrowers has negated the need for FSA guarantees. We anticipate that the utilization of FSA guarantees will continue to increase over the next several years due to the decline in commodity prices in many of our agricultural industries.

The Association employs the following methods and strategies to ensure that credit and services offered to YBS farmers are provided in a safe and sound manner and within risk-bearing capacity:

- Board policy includes a specific section discussing program safety and soundness under its operating parameters;
- Board policy includes a maximum level of risk for YBS adverse volume originated under the program;
- The Association's internal audit plan requires periodic auditing of the YBS program, which is done annually in conjunction with the internal credit review; and
- The Association's internal audit and loan review plan will annually include a selection of YBS loans within its normal selection criteria and assess individual loan credit administration, coding, and loan quality.

Funds Held Program

GREENSTONE FARM CREDIT SERVICES, ACA
(Unaudited)

The Association offers a Funds Held Program ("Funds Held") that provides funds for customers to make advance payments on designated real estate, operating, and intermediate-term loans, pay insurance premiums, taxes, or any other eligible purpose.

PAYMENT APPLICATION: Loan payments received by the Association before the loan has been billed will normally be placed into Funds Held and applied against the next installment due.

ACCOUNT MAXIMUM: The amount in Funds Held may not exceed the unpaid principal balance of the loan.

INTEREST RATE: Interest will accrue on Funds Held at a simple rate of interest that may be changed by the Association from time to time. The interest rate may never exceed the interest rate charged on the related loan.

Funds Held on real estate loans, operating loans, and intermediate-term loans are paid at a rate of interest equal to 3% (300 basis points) less than the loan rate.

WITHDRAWALS: Money in Funds Held may be withdrawn for the following items: customers with real estate loans, operating loans, and intermediate-term loans may use funds for future installments, insurance premiums, or real estate taxes on collateral for the respective loan. Customers may make withdrawals for other approved purposes in lieu of increasing the loan amount for any eligible loan purpose.

ASSOCIATION OPTIONS: In the event of default on any loan, if Funds Held exceeds the maximum limit as established above or if the Association discontinues their Funds Held program, the Association may apply funds in the account to the unpaid loan balance and other amounts due and shall return any excess funds to the customer.

UNINSURED ACCOUNT: Funds Held is not a depository account and is not insured. In the event of the Association's liquidation, customers having balances in Funds Held shall be notified according to the FCA Regulations.

Office Locations

Corporate Office

East Lansing / 517-318-4100
3515 West Rd., East Lansing, MI 48823

Michigan

Adrian / 517-263-9798
5285 W. US 223, Adrian, MI 49221

Allegan / 269-673-5541
1517 Lincoln Rd., Allegan, MI 49010

Alma / 989-463-3146
2942 W. Monroe Rd., Alma, MI 48801

Alpena / 989-354-4343
2200 M-32 West, Alpena, MI 49707

Ann Arbor / 734-769-2411
7530 Jackson Rd., Ann Arbor, MI 48103

Bad Axe / 989-269-6532
749 S. Van Dyke Rd., Bad Axe, MI 48413

Bay City / 989-686-5100
3949 S. Three Mile Rd., Bay City, MI 48706

Berrien Springs / 269-471-9329
8302 Edgewood Rd.,
Berrien Springs, MI 49103

Cadillac / 231-775-1361
7597 S Mackinaw Trl., Cadillac, MI 49601

Caro / 989-673-6128
1570 Cleaver Rd., Caro, MI 48723

Charlotte / 517-543-1360
722 W. Lawrence Ave., Charlotte, MI 48813

Concord / 517-524-6670
100 Spring St., Concord, MI 49237

Corunna / 989-743-5606
704 W. Corunna Ave., Corunna, MI 48817

Escanaba / 906-786-4487
1801 N. Lincoln Rd., Suite A,
Escanaba, MI 49829

Grand Rapids / 616-647-0030
3225 Walker Ave. NW,
Grand Rapids, MI 49544

Hart / 231-873-7102
3486 W. Polk Rd., Hart, MI 49420

Hastings / 269-945-9415
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